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1982

Census of Construction Industries

CC82-1-4

INDUSTRY SERIES

General Contractors— Industrial Buildings and Warehouses

Industry 1541



The publications from the 1982 Economic and Agriculture Censuses are dedicated to the memory of Shirley Kallek, Associate Director for Economic Fields. During her career at the Bureau of the Census (1955 to 1983), she continually directed efforts to improve the timeliness and accuracy of economic statistics.

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Census of Construction Industries

CC82-I-4

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Industry 1541

Issued July 1984



U.S. Department of Commerce

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Clarence J. Brown, Deputy Secretary
Sidney Jones, Under Secretary for
Economic Affairs

BUREAU OF THE CENSUS

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ECONOMIC CENSUSES OVER TIME

The early beginnings of America's industrial output were first measured in the United States in the 1810 Decennial Census and again in 1820, when questions on manufacturing were included with those for population. Beginning with the 1840 Decennial Census, there were enumerations of manufactures and mineral industries at 10-year intervals up to and including the year 1900 for manufactures and 1940 for mineral industries. The latter census was taken again for 1954, 1958, 1963, and 1967.

Because of the increasing dominance of manufacturing in the early 20th century, Congress directed that quinquennial censuses of manufactures be taken beginning in 1905. However, from 1919 through 1939, these censuses were conducted every 2 years. The need for war-related current surveys in the early 1940's postponed the next census of manufactures until 1948 (for 1947). That census was again taken for 1954, 1958, 1963, and 1967.

Retail and wholesale trade data were first collected in 1930. and in 1933 information on selected service industries was added to the data-collection operation. These business censuses, as they were called, were again taken for 1935, 1939 (as part of the 1940 decennial program), 1948, 1954, 1958, 1963, and 1967.

Information on construction industries was first obtained in 1930 and again for 1935 and 1939. Data for the full spectrum of construction industries were not gathered again until 1968 (for 1967).

The need for transportation data to supplement information available from existing governmental or private sources was recognized by Congress in the late 1950's and early 1960's. The census of transportation (consisting of several surveys) was first taken for 1963 and again for 1967.

Since 1967, all of the above censuses have been taken quinquennially as part of the Census Bureau's economic census program. (For the 1977 censuses, the coverage of the service industries was broadened from "selected services" to all services, except religious organizations and private households. A total of 41 additional four-digit standard industrial classifications1 (SIC's) in 7 SIC major groups was added to the scope of the census. While most of the industries included for the first time for 1977 were covered again for 1982, some were not, i.e., hospitals; elementary and secondary schools; colleges, universities, and professional schools; junior colleges and technical institutes; labor unions and similar labor organizations; and political

The first manufacturing census for an outlying area was conducted in Puerto Rico for the year 1909. Thereafter, with the exception of 1929, a census was taken at 10-year intervals through 1949. The first censuses of retail trade, wholesale trade, and selected service industries in Puerto Rico were conducted for 1939. These censuses also were taken for the years 1949, 1954, 1958, 1963, and 1967. A census of construction industries was first introduced in Puerto Rico for 1967. These censuses of Puerto Rico have been taken since then for the years 1972, 1977, and 1982.

Censuses of manufactures, retail trade, wholesale trade, and selected service industries were conducted in Guam and the Virgin Islands of the United States for 1958, 1963, 1967, 1972, 1977, and 1982. Censuses of mineral industries were taken in the Virgin Islands of the United States for the years 1958, 1963, and 1967 but not since that time. A census of construction industries was also undertaken in these areas for 1972. 1977, and 1982.

Retail trade, wholesale trade, selected service industries. manufacturing, and construction industries were canvassed for the first time in the Northern Mariana Islands in 1983 (for 1982).

For 1982, the economic censuses and agriculture censuses were conducted concurrently.

USES OF THE ECONOMIC CENSUSES

The economic censuses are the major source for facts about the structure and functioning of the Nation's economy and provide essential information for government, business, industry, and the general public. They provide an important part of the framework for such composite measures as the gross national product, input-output measures, indexes of industrial production, and indexes measuring productivity and price levels. Information from the censuses is used to establish sampling frames and as benchmarks for current surveys of business activity, which are essential for measuring short-term economic conditions.

^{&#}x27;Standard Industrial Classification Manual: 1972. For sale by Superintendent of Documents, U.S. Government Printing Office, Washington, D.C. Stock No.041-001-00066-6. 1977 Supplement. Stock No. 003-005-00176-0.

State and local governments use census data to assess business activities within their jurisdictions. The private sector uses the data to forecast general economic conditions; analyze sales performance; lay out sales territories; allocate funds for advertising; decide on locations for new plants, warehouses, or stores; and measure potential markets in terms of size, geographic areas, kinds of business, and kinds of products made or sold.

Following every census, thousands of businesses and other users purchase reports. Likewise, census facts are widely disseminated by trade associations, business journals, and newspapers. Volumes containing census statistics are available in most major public and college libraries. All 1982 data are available on microfiche from the U.S. Government Printing Office and most data on computer tape from the Census Bureau. Finally, the more than 50 State Data Centers also are suppliers of economic census statistics.

AUTHORITY AND SCOPE OF THE ECONOMIC CENSUSES

The economic censuses are required by law under title 13 of the United States Code, sections 131, 191, and 224, which directs that they be taken at 5-year intervals for the years ending in 2 and 7. The 1982 Economic Censuses covered manufacturing, mining, construction industries, retail trade, wholesale trade, service industries, and selected transportation activities. Special programs also cover minority-owned and women-owned businesses. The next economic censuses are scheduled to be taken in 1988 for the year 1987.

METHOD OF ACCOUNTING AND TIME COVERED

For the census report, respondents could use any system of accounting by which they maintained their books. Therefore, reports could be based on cash, accrual, or completion of contract methods of accounting.

A report was supposed to cover the calendar year 1982. If that involved considerable costs, fiscal year reporting was permitted if it did not produce great differences. However, all payroll and employment figures had to be reported for the calendar year.

CENSUS OF CONSTRUCTION INDUSTRIES— SCOPE AND CLASSIFICATION

The 1982 Census of Construction Industries covers all employer establishments (establishments with payroll) primarily engaged in contract construction, construction on their own account for sale, or in subdividing real property into lots as defined in the 1972 Standard Industrial Classification (SIC) Manual. This industrial classification system has been developed by experts on classification in government and private industry under the guidance of the Office of Management and Budget and is in general use among government agencies and among organizations outside the government.

Contract construction - The SIC manual defines construction in three broad types of activity: (1) building construction by general contractors, (2) other construction by general contractors, and (3) construction by special trade contractors.

- 1. Building construction by general contractors—General building contractors are primarily engaged in the construction of dwellings, office buildings, stores, farm buildings, and other projects of a similar character.
- 2. Other construction by general contractors Often referred to as heavy construction contractors, these contractors are primarily engaged in the construction of highways, streets, bridges, and tunnels; docks and piers; dams and water projects; sewage collection, treatment, and disposal facilities; storm sewer systems; air fields; and other heavy construction which involves either earth moving or the erection of structures and appurtenances, other than buildings.
- 3. Construction by special trade contractors—Special trade contractors are primarily engaged in specialized construction activities such as plumbing, painting, electrical work, carpentry, etc.

General contractors in both the building and the heavy construction field usually assume responsibility for an entire construction project, but may subcontract to others those portions of the project requiring special skills or equipment. Special trade contractors may work for general contractors, for other subcontractors, or may work directly for the owner of the property.

Construction on their own account, for sale-Operative builders are primarily engaged in constructing buildings or other structures on their own account, acting as their own general contractor. These structures are generally sold when completed. Investment builders, primarily engaged in construction on their own account for rent or lease, were not included within the scope of the construction census.

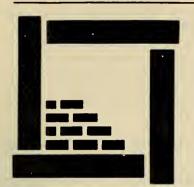
Subdividers and developers, except cemeteries-The SIC manual defines subdividers and developers, except cemeteries, as establishments engaged in subdividing real property into lots, except cemetery lots, and in developing it for resale on their own account or for others.

In this system, each establishment is assigned an industry code on the basis of its major activity.

Each establishment receiving a questionnaire was requested to report the percent of total business receipts for each kind-ofbusiness activity engaged in during 1982. This information was used for the computer assignment of appropriate industry classifications. During this work, various tests were also made using other data reported on the questionnaire. The proportion of construction receipts to total business receipts was checked to verify that the establishment was primarily in construction. Also taken into consideration were the types of structures worked on during the year and the extent of work undertaken for other contractors.

Construction establishments often engage in various construction activities, but in only a few instances do the SIC industry categories take into consideration combinations of activities. An example is SIC 1711, which includes establishments primarily engaged in plumbing, heating, air conditioning, ventilation, and refrigeration work. It is necessary, however, to assign a single industry code to the establishment based on its major activity.

¹Standard Industrial Classification Manual: 1972. For sale by Superintendent of Documents, U.S. Government Printing Office, Washington, D.C. 20402. Stock No. 041-001-00066-6. 1977 Supplement. Stock No. 003-005-00176-0.



FINAL REPORT INDUSTRY SERIES

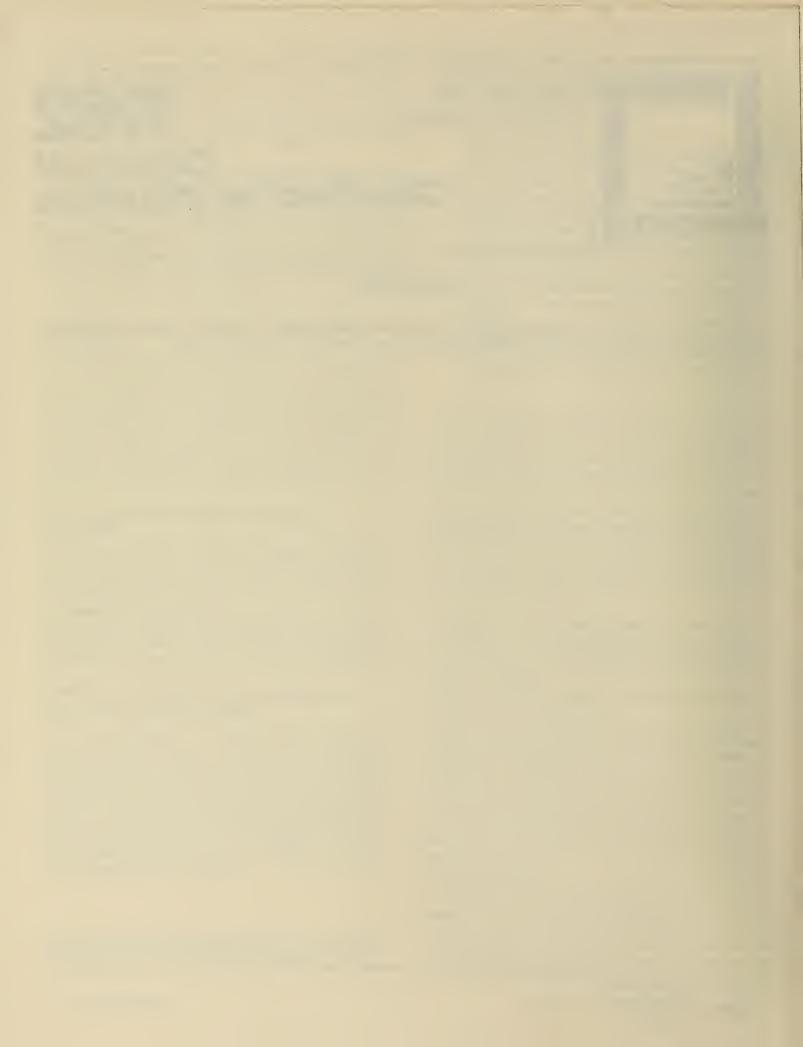
1982

Construction Industries

CC82-I-1 to 28 Changed October 1986

CHANGE SHEET

This revision is to table 4 in the original publications for Industry Series CC82-I-1 to 27 and table 8 for Industry Series CC82-I-28. In the stub, change 1982 (line 8) to read 1981 and 1981 (line 12) to read 1982.



Therefore, the statistics shown for an industry reflect not only the primary activity of the establishments in the industry, but also their secondary activities.

The structure of the Standard Industrial Classification System makes it possible to classify or tabulate establishments by major group (two-digit), industry group (three-digit), or industry (four-digit) according to the degree of detail available and needed.

ESTABLISHMENT BASIS OF REPORTING

The census of construction industries is conducted on an establishment basis. A "construction establishment" is defined as a relatively permanent office or other place of business which has been established for the management of more than a single project or job and is expected to be maintained on a continuing basis. Such "establishment" activities include, but are not limited to, estimating, bidding, scheduling, purchasing, supervising, and operating the actual construction work being conducted at one or more construction sites.

Exceptions to the "relatively permanent office" rule were that: (1) in case of joint ventures, a separate establishment report was required covering the joint venture entity even though established to undertake only a single project; and (2) to the extent that separate legal entities were set up to carry out only a given project or part of a project, then a separate establishment report was also required for each legal entity.

To the extent that several companies shared or operated out of a single office or place of business, each such legal entity engaged in construction was considered a separate establishment and each was requested to file the necessary "establishment" report covering the activities it conducted in or from that common office.

Companies with more than one construction establishment were required to submit a separate report for each such establishment operated during all or any part of 1982.

Separate construction reports were not required for each project or construction site. Aggregated information was included in the report of the construction establishment responsible for the work of the construction projects and sites.

If an establishment engaged in two or more distinctly different lines of economic activity (wholesale or retail trade, service, manufacturing, construction, mining, etc.) at the same place of business, it was requested to file a separate report appropriate to each activity, provided that the activity was of substantial size and separate records were maintained or substantially accurate etimates could be prepared.

If a separate establishment report could not be prepared for each activity, then a construction report was requested covering all activities of that establishment providing that the 1982 gross receipts from construction activities exceeded the gross receipts from each of its other activities.

An establishment is not necessarily identical with a "company" or "enterprise," which may consist of one or more establishments. The census of construction industries figures represent a summary of records for individual establishments rather than for companies. The census tabulations, therefore, differ from those prepared on a company basis.

Construction businesses with no payroll during 1982 (nonemployers) were not required to file census reports. Collection and tabulation of data for these businesses are described in the section on "Sample Design." Foreign construction activities were not included in this census.

SAMPLE DESIGN, ESTIMATION PROCEDURES, AND **RELIABILITY OF ESTIMATES**

The firms included in the 1982 Census of Construction Industries were identified as part of an operation common to all 1982 Economic Censuses. Construction firms were divided into employers (firms with payroll) and nonemployers (firms without payroll). Statistical information for the employers was obtained in the census by a survey which included all medium size and large employers and a sample of the smaller ones. Census reports were not required from the nonemployers. Statistics on them were obtained from administrative records of other agencies of the Federal Government based on information supplied directly to the agencies.

Employer Firms

Developing the sampling frame for employer firms-This operation started with obtaining a list of all construction firms in the active records of the Internal Revenue Service (IRS) which were subject to payment of Federal Insurance Contributions Act taxes. The basic source for this list has been the Internal Revenue Service Business Master File, a comprehensive list of firms engaged in business activities in the United States. The file contains the name, address, and form of ownerhship of each firm and also indicates whether or not the firm is subject to the Federal Insurance Contributions Act. Each firm in this file is assigned a unique employer identification (EI) number which it uses in filing its various reports with the IRS. The Social Security Administration (SSA) maintains a similar list using the same identification numbers, which also contains information on the industrial classification of each firm. The Bureau of the Census obtained both of these lists and combined them.

Under special arrangements which safeguarded the confidentiality of the information, the Bureau also obtained administrativerecord data on payrolls and receipts and added these data to the combined list. The list, thus created from the IRS-SSA information, was a list of employer firms. However, for the 1982 Economic Censuses the basic reporting unit is the "establishment." Therefore, steps were taken to identify the individual establishments of those firms which operate more than one place of business. The information for making this determination was obtained by means of the Company Organization Survey (COS), an annual canvass of all known multiestablishment firms and large single-establishment firms. Thus, the 1982 Economic Census list for single-establishment employer firms was obtained from the IRS-SSA, but the list of establishments of multiestablishment employer companies was obtained directly from those companies in the COS.

In general, the IRS-SSA list provided sufficient industrial classification data to assign a firm to the proper economic census, but there were a number of firms for which this information was inadequate or unavailable. A special form, NC-9923, General Report, was mailed to all such firms, requesting information on the nature of the firm's activities. From the information reported, the firm was given an industrial classification code and assigned to the appropriate economic census. Since construction firms found in this way were identified as such, only after the regular census mailing had taken place, they were treated as a supplement to the basic list.

For 1982, some data will be published for Standard Consolidated Statistical Areas (SCSA's) and selected Standard Metropolitan Statistical Areas (SMSA's). Therefore, each establishment was assigned to an SMSA code or to the balance of a State. The balance of the State was considered to be a separate cell for the selection process. In States where none of the SMSA's had more than 500,000 inhabitants in the 1970 Decennial Census, all establishments were assigned to the balance of the State.

Selecting the employer sample - A construction universe of about 464,000 single establishment employer firms and 6,500 multiestablishment employers, accounting for another 13,000 construction establishments, was developed by the procedures described above. From this universe, a sample of 172,000 employer establishments was selected. This sample was generally organized by standard industrial classification (SIC) in State sequence. The sample was designed to provide publishable estimates for the most construction industries at the State and selected SMSA level. It consisted of all construction establishments in multiestabishment companies, all singleestablishment companies with the payroll equivalent of 20 employees or more, and a sample of single-establishment companies with less than 20 employees. There were three SIC's for which this standard plan was not used: SIC 1622, Bridge, Tunnel, and Elevated Highway Construction Contractors; SIC 1795, Wrecking and Demolition Work Special Trade Contractors; and SIC 1796, Installation or Erection of Building Equipment Special Trade Contractors.

The number of establishments classified in each of these three industries is very small and consequently, all single-unit establishments in these three industries were included in the sample. For sampling purposes, the number of employees was estimated from the 1981 payroll data in the administrative records, using an industry average wage per employee. The sampling was accomplished using a systematic method within each four-digit SIC. If the SIC code for an establishment was not complete, it was sampled as part of a two-digit group (e.g., 1520 was sampled as 1500, 1620 as part of 1600) except for non-classifiable cases in two-digit group 17. These were sampled as part of 1799 which is Special Trade Contractors, Not Elsewhere Classified. For the establishments with less than 20 employees, the sample was selected by sorting the establishments into State by SMSA by SIC by payroll sequences, and drawing a systematic sample of at least two establishments within each cell, with the probability of selection being proportional to the 1981 payroll. If the State-SMSA-SIC cell had two or less establishments in the frame, all establishments were selected (a 100-percent sample). A 100-percent sample was taken of the construction firms identified from the NC-9923, General Report, and of the transfers from other census trade areas. These latter cases were identified during the processing stages. These were caused either by changes of activity in the firm since the last updating of the classification file, or errors in the mailout classification. These cases were all added to the construction census, with certainty.

Estimation procedures for 1982 and 1977 data-Since all larger employer firms and some smaller ones were included in the census, sample estimation was required only for the universe of firms not selected with certainty. The published statistics are the totals of the estimates for the sampled firms and the

aggregates for the certainty (larger) firms. All estimates for 1982 and 1977 published here are simple unbiased estimates of the

$$n_{C}$$

$$x'_{C} = \sum x_{i}/p_{i}$$

$$i = 1$$

where: x' is the simple unbiased estimate of a characteristic for a publication cell.

> is the reported value of a characteristic for an individual establishment in the publication cell.

is the selection probability of that firm.

is the number of firms in the sample for the cell.

This method of estimation was used for all 1982 and 1977 characteristics. Before this formula was applied, it was necessary to convert into dollars those distributions of construction receipts which had been reported by the establishments as percentages construction receipts by type of project, location of project, etc.

Reliability of employer statistics-Since the estimates for employer establishments in these reports are based on the samples, they are subject to sampling variability and may be expected to differ from results which would have been obtained if a complete census had been taken using the same forms and procedures. The sampling errors shown in the tables were estimates directly from the sample reports, using methods appropriate for the sample design and form of estimation used.

The relative standard error is a measure of sampling variability, i.e., the variation that might occur by chance because only a sample of the population is surveyed. As calculated for this report, the relative standard error also partially reflects the effect of random errors of response and processing, but it does not take into account the effect of any consistent biases due to those types of errors. The chances are about 68 out of 100 that an estimate from the sample would differ from a complete census by less than the relative standard error. The chances are about 95 out of 100 that the difference is less than twice the relative standard error and about 99 out of 100 that it is less than 2-1/2 times the relative standard error. Individual estimates with large relative standard errors have been shown in the published tables. Any such estimates should be used with caution. The very large relative standard errors generally occur for the smaller estimates.

Although relative standard errors have been calculated for all of the published statistics, they are shown for each statistic only in the tables presenting detailed statistics. The other tables show relative standard errors only for some characteristics because of lack of space.

Separate measures of reporting and processing errors are not available. However, estimates which were subject to large errors of these types are likely to have been detected and corrected, or withheld from publication in the process of the review of the data for reasonableness and consistency. Other specific qualifications of the published data are indicated in footnotes to the tables.

The statistics in this report were based on data received by the time of final publication. Data were imputed for

establishments that did not report by that date. Selected establishments were contacted again to obtain as much information on the telephone as possible. Late data received in early 1984 were substituted for imputed data when the difference between the two was significant. Some publication cells in which more than 50 percent of the data were imputed have been suppressed.

Nonemployer Firms

General—As described earlier, the information derived from the business income tax returns of all firms was matched to the census employer file on the basis of common identification numbers. Those business income tax returns which could not be matched, were further classified on the basis of several characteristics. Returns with characteristics consistent with firms without payroll were treated as nonemployers. The nonemployer construction firms were not required to file census reports.

For "number of establishments," each separate income tax return was assumed to be an establishment. "All business receipts" was based on receipts information reported on the tax return. In 1982, this group accounted for 60 percent of the total number of construction establishments, but accounted for only 8 percent of all business receipts of all construction establishments.

Qualifications to the nonemployer data—Since no sampling was involved in the nonemployer establishments, the statistics for nonemployers are not subject to sampling variability. However, these data are subject to an unknown amount of reporting and processing errors which could not be detected by the Census Bureau.

CENSUS REPORT FORMS

Information for the 1982 Census of Construction Industries was obtained from employer establishments primarily through the use of eight questionnaires, determined by industry classification and size. Standard forms and short forms were developed for each of the three two-digit SIC groups (15, 16, and 17), and for the establishments classified in SIC 6552. Establishments with 50 or more employees all received the standard form. A sub-sample of establishments with fewer than 50 employees received short forms instead of the standard forms. The short forms covered only major items and ornitted most of the detail found in the longer forms.

In reviewing and developing the questionnaires, comments and recommendations were solicited from construction trade associations and appropriate advisory groups. The Census Bureau surveyed several thousand firms representing all economic activities to gain insight into the way companies maintain records and to see whether new information could be collected.

DATA PROCESSING

The 1982 census report forms were mailed out in December 1982. Collection of these report forms, also by mail, was essentially completed in July 1983. They were mailed from and

returned to the Census Bureau's Data Preparation Division in Jeffersonville, Ind., where routine editing and coding of the report forms were also accomplished.

The returned reports underwent extensive processing. A preliminary edit done at the time of data entry identified obviously deficient reports and reports needing clarification. When necessary, these problems were resolved by further contact with the respondents. Next, the data were transmitted to Census Bureau headquarters in Washington, D.C.

Data records, then, underwent a detailed computer review and analysis. The records containing significant problems were referred for further analytical review and, if necessary, contacts were made with the respondents. The computer performed most classification coding (such as industry coding, geographic coding, and size coding) and imputation for missing items or for the small number of reports not received in time for tabulation. The imputation was performed on an industry (or industry group)-State (or geographic group) basis using all available response and administrative data.

The data records were then tabulated on an industry basis. Industry totals were subjected to analytical review, and selected statistics were prepared for the preliminary reports. Corrections resulting from this review were made to the computer records and final tabulations were produced.

The review of a preliminary report for an industry often uncovered the need for corrections or revisions to the data for another industry for which a preliminary report had already been published. The final reports incorporate all revisions and corrections made during the review of the preliminary reports and contain considerable more data than were published in those reports.

GEOGRAPHIC CLASSIFICATION

Information for the 1982 Census of Construction Industries' final industry report series is classified on the basis of two types of geographic distributions: (1) physical location of the establishment, and (2) location of construction work. Separate State codes were assigned based on this information.

The geographic area reports series presents similar data by industry for each State (physical location of the establishment) and for selected SCSA's and SMSA's.

DUPLICATION IN RECEIPTS

The aggregate of construction receipts reported by all construction establishments in each of the several industry, geographic area, or other groupings in this census, contains varying amounts of duplication, since the construction work (and the receipts) of one firm may be subcontracted to other construction firms and also be included in the subcontractors' receipts. To avoid this duplication, a "net construction receipts" figure has been derived for each establishment by subtracting the payments made for construction work subcontracted to others from the total construction receipts.

Duplication in receipts between other construction and nonconstruction industries results from the use of products of these other industries as input materials by construction establishments. "Value added," avoids this duplication and is, for most purposes, the best measure for comparing the relative economic importance of industries or areas. "Value added," is defined in the 1982 Census of Construction Industries as equal to all business receipts less payments for construction work subcontracted to others and payments for materials, components, supplies, and fuels. However, for SIC 6552 and SIC 1531 where land receipts are significant, value added is defined as equal to all business receipts less land receipts, payments for construction work subcontracted to others, and payments for materials, components, supplies, and fuels.

SPECIAL TABULATIONS

Special tabulations of data collected in the 1982 Census of Construction Industries may be obtained on computer tape or in tabular form. The data will be in summary form and subject to the same rules prohibiting disclosure of confidential information (including name, address, kind of business, or other data for individual business establishments or companies), as are the regular publications.

Special tabulations are prepared on a cost basis. A request for a cost estimate, as well as exact and detailed specifications of the type and format of the data to be provided, should be directed to the Chief, Construction Statistics Division, Bureau of the Census, Washington, D.C., 20233.

To discuss a special tabulation before submitting specifications, call 301-763-5435.

RELATIONSHIPS OF THE ECONOMIC CENSUSES TO CURRENT SURVEYS

The Census Bureau also conducts current surveys (monthly, quarterly, and annually) to keep abreast of the rapid changes in business conditions, new processes, new materials, and shifting demands of goods and services. The census universe provides the sampling frame, weights, and benchmarks on which some of these current surveys are based. The accuracy of the measures derived from these current surveys is directly related to the completeness of information provided in the censuses.

COMPARABILITY OF CENSUS OF CONSTRUCTION INDUSTRIES DATA WITH OTHER DATA

Data contained in the reports of the 1982 Census of Construction Industries are not the same as the data published in the Census Bureau's monthly Construction Reports, Series C30, Value of New Construction Put in Place. The main difference is that the C30 series covers all new construction put in place without regard to who is performing the construction activity, whereas, the construction census figures cover both new construction and

maintenance and repair work, but only for establishments classified in the construction industry. Force account construction activity—construction work performed by the labor force of a nonconstruction company for itself, or by other entities (Federal, State, or local governments) for themselves, or by property owners for themselves—probably accounts for more than half of the difference in the data of the two series of reports. Other factors contributing to the difference are that the census data do not include: (1) the value of materials supplied by the owners of projects, (2) the value of separate architectural and engineering services and, to a lesser extent, (3) the value of construction work performed for others by firms outside the scope of construction (manufacturers who install, lumber yards and other businesses, etc.).

Data contained in the reports of the census of construction industries may also differ from industry data in "Employment and Earnings Statistics," published by the Bureau of Labor Statistics, and "Statistics of Income," published by the Internal Revenue Service. These differences arise from varying definitions of scope, coverage, timing, classification, and methodology. Their effect is not fully known.

ABBREVIATIONS AND SYMBOLS

The following abbreviations and symbols are used in this publication:

- * Sampling error exceeds 40 percent.
- ** All employees (average) is the sum of construction workers during pay period including 12th of March, May, August, and November divided by 4, added to all others, March 12th.
- Represents zero.
- † Represents total construction receipts less payments for construction work subcontracted to others. (See Duplication in Receipts.)
- †† Represents all business receipts less payments for construction work subcontracted to others, and payments for materials, components, supplies, and fuels. In SIC's 1531 and 6552, land receipts are also subtracted from "all business receipts." (See Duplication in Receipts.)
- Possible duplication in data. (See Duplication in Receipts.)
- (D) Withheld to avoid disclosing data for individual companies; data are included in higher level totals.
- (NA) Not available.
- (S) Withheld because estimate did not meet publication standards on the basis of either the response rate, associated standard error, or a consistency review.
- (W) Greater than zero but less than 1 percent.
- n.s.k. Not specified by kind.

Users' Guide for Locating Statistics in This Report by Table Number

Statistics	For U.S.	By State	By employ- ment size	By receipts size	By type, class, ownership, kind of business, and location of construction ¹	By specialization in types of construction
Assets and depreciation (gross book value): Beginning of year—structures, machinery and equipment End of year—total End of year—structures, machinery and equipment Depreciation charges during the year— structures, machinery and equipment	3 1, 3 3 3	1	5	6		
Capital expenditures: Total capital expenditures	1, 3 3 3	1	5	6		
Communication services, payments for	2					
Employees: All employees—average number	1, 2 1, 2, 9 2	1	5	6		8
Employer costs for fringe benefits—legally required and voluntary expenditures	2					
Establishments: Number in business at end of year	2 1, 2, 4, 9	1, 9	5	6		8
Hours—construction workers: Total	1, 2, 9 2, 9	1, 9 9	5	6		
Inventories	4					
Materials, components, supplies, and fuels— payments for	1, 2	1	5	6		
Payroll: First quarter, all employees	2 1, 2 1, 2 2	1 1	5	6		8
Power, fuels, and lubricants – payments for	2					
Profile of the industry—selected industry averages	12 2					
Ratios, State	13	13				
Receipts: All business receipts Construction receipts, total For work subcontracted in from others Other business receipts and land receipts ²	2 1, 2, 4 2 2	1	5 5	6 6	2, 7, 10	8
Net construction receipts	1, 2 1, 2	1 1	5 5	6 6		8
Rental payments: Total	1, 2 2 2	1	5	6		
Repairs to structures and related facilities	2					
Repairs to machinery and equipment	2					
Storage capacity for fuels ³						
Subcontract work to others, payments for	1, 2	1	5	6		8

Note: Data for 1977 and earlier years are also available in some of these tables.

¹Type—buildings, roads, etc. Class—new construction or maintenance and repair work. Ownership—private or government owned. ²Other business receipts and land receipts are shown separately for SIC's 1531 and 6552 only. ³Storage capacity for fuels shown only for SIC's 1611, 1622, 1623, and 1629.



General Contractors—Industrial Buildings and Warehouses

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SUMMARY OF FINDINGS

Establishments classified in this industry are primarily engaged in the construction of industrial buildings such as aluminum plants, automobile assembly plants, pharmaceutical manufacturing plants, and commercial warehouses (including new work, additions, alterations, remodeling, and repair). For specific examples, refer to the 1972 Standard Industrial Classification (SIC) Manual and its 1977 supplement.¹

During 1982, there were 7,436 establishments with payroll classified in this industry.2 All business receipts of these establishments amounted to \$18.1 billion, of which \$17.8 billion were receipts for construction work. Their payments for construction work subcontracted to others amounted to \$8.5 billion. leaving net construction receipts of about \$9.3 billion. Value added for 1982 was \$5.8 billion. (See Introduction and appendix for explanation of terms.)

The establishments in this industry made payments of \$3.7 billion for materials, components, and supplies purchased for use in construction work for others, purchased and subsequently provided to subcontractors for their use, purchased and then resold to others, and purchased and used in construction work for their own account. However, materials furnished to contractors by owners of projects are, of course, not included. Payments of \$130.5 million were also made for selected power, fuels, and

lubricants purchased during the year from other companies or received from other establishments of the parent company.

Establishments with 10 employees or more, while representing only 40 percent of the total number of employer establishments in this industry, accounted for 91 percent of all business receipts.

Total average employment in the industry showed a decrease of 24 percent from 1977 to a total of 154 thousand employees. Total payroll for 1982 amounted to \$3.2 billion. Hours worked by construction workers during the first quarter of 1982 were 52.9 million hours, while hours worked during the third quarter were 58.2 million hours.

Payments of \$581.6 million for employer costs for fringe benefits (not included in payroll) represent expenditures during the year for legally required and voluntary fringe benefit programs for employees-such as employers' Social Security contributions, unemployment compensation, pension plans, and welfare plans.

The 1982 estimates for establishments with payroll in all of the construction industries are based on a probability sample consisting of about 172,000 construction establishments. The estimates for this particular industry are based on a sample of about 4,000 establishments.

The statistics reported by each establishment cover all of its activities, not just construction. Therefore, aggregates of such data for an industry reflect not only the primary construction activities of the establishments in the industry, but also their secondary construction activities and any nonconstruction activities.

All data shown are based on current dollars for the years specified and have not been adjusted for price changes or inflation between 1977 and 1982.

^{&#}x27;Standard Industrial Classification Manual: 1972. For sale by Superintendent of Documents, U.S. Government Printing Office, Washington, D. C. 20402. Stock No. 041-001-00066-6. 1977 Supplement. Stock No. 003-005-00176-0.

²Limited data for establishments in this industry without payroll (nonemployers) will be included in the U.S. industry summary report to be published after the individual industry reports have been issued.

Table 1. General Statistics for Establishments With Payroll by State: 1982 and 1977

					1982			
		Emplo	yees**	Pa	yroll			
Location of establishment	Number of establishments	All	Construction workers	All employees	Construction workers	Construction worker hours (thousands)	Total construction receipts	Net construction receipts†
	A	В	С	D	E	F	G	н
United States	7 436	153 959	121 645	3 234 149	2 346 960	219 723	17 845 539	9 299 130
Alabama Alaska Arizona Arkansas California	108	8 429	7_303	175 495	143 540	15 417	629 783	379 417
	47	812	633	20 119	15 660	903	55 225	36 889
	88	827	594	17 134	11 050	1 009	127 550	59 992
	62	987	825	16 760	12 965	1 426	81 766	55 617
	692	11 234	8 627	296 965	219 503	14 086	2 304 475	1 149 336
Colorado	122	2 591	1 950	59 072	41 419	3 607	467 452	226 572
	94	1 022	743	21 237	14 180	1 357	110 877	58 875
	29	626	509	10 968	7 833	949	65 673	31 830
	8	(S)	(S)	(S)	(S)	(S)	(S)	(D)
	323	5 036	4 020	89 293	63 475	7 083	505 501	248 643
Georgia Hawaii Idaho Illinois Indiana	155	3 979	3 213	63 668	45 491	6 042	390 692	181 782
	12	337	270	9 387	7 087	492	50 559	29 979
	69	496	389	7 456	5 688	634	49 601	28 938
	339	6 124	4 378	155 680	102 792	7 396	840 871	435 686
	175	6 098	5 045	122 218	93 654	6 980	453 907	294 710
lowaKansasKentucky	117	2 169	1 807	39 404	30 190	3 034	170 109	123 807
	108	1 281	1 034	22 819	16 572	1 925	110 314	81 366
	113	1 890	1 516	35 702	27 761	2 620	189 297	112 270
	178	5 518	4 693	109 536	90 350	8 422	352 575	253 312
	20	469	425	4 167	3 141	388	29 422	(D)
Maryland	81	1 364	1 053	26 516	18 668	1 896	159 110	63 850
	190	3 008	2 299	62 096	43 402	3 573	417 897	172 366
	328	4 594	3 283	112 214	74 370	5 554	1 454 673	418 330
	135	1 748	1 302	35 221	23 700	2 243	185 071	109 731
	64	1 466	1 191	21 150	15 836	2 287	113 693	83 433
Missouri Montana Nebraska Newada New Hampshire	169	6 288	5 044	147 989	111 662	8 581	861 383	426 540
	23	232	167	4 884	3 389	266	35 231	25 598
	56	795	533	10 812	8 209	957	48 567	36 241
	40	223	158	4 047	2 374	194	33 813	16 052
	27	422	341	6 508	4 828	649	35 993	19 870
New Jersey New Mexico New York North Carolina North Dakota	253	3 650	2 909	78 418	58 611	4 528	430 318	206 287
	54	921	744	13 787	10 221	1 074	87 363	47 116
	407	5 744	4 402	118 330	83 209	7 486	694 180	371 143
	186	9 7 38	7 7 11	208 244	141 494	21 350	900 657	517 193
	62	718	586	11 415	8 308	911	59 461	43 537
Ohio	400	7 384	4 949	181 229	105 094	8 102	822 126	383 213
	99	1 253	992	20 954	15 926	1 684	122 244	73 502
	102	788	614	15 632	11 567	842	80 671	47 555
	382	6 600	5 191	145 470	111 553	9 176	804 314	436 467
	32	319	212	5 866	3 613	416	34 748	22 709
South Carolina South Dakota Tennessee Texas Utah	90	5 267	4 741	105 011	91 176	9 297	372 059	235 364
	28	232	161	3 113	2 112	276	12 970	10 175
	138	3 620	3 009	58 543	43 294	4 977	327 812	176 872
	548	15 375	12 310	316 989	232 536	23 040	1 519 445	933 823
	88	1 078	880	19 515	15 082	1 403	124 620	61 054
Vermont Virginia Washington West Virginia Wisconsin Wyoming	18	573	460	9 507	6 923	888	54 608	31 088
	148	4 299	3 550	73 192	46 790	6 510	402 766	157 184
	197	2 233	1 697	52 219	36 715	2 486	293 383	146 026
	47	1 030	846	20 829	16 002	1 323	73 905	55 407
	145	2 691	2 050	59 624	42 522	3 414	259 789	144 349
	29	127	93	2 332	1 525	159	11 402	8 156

		1982-	-Con.				1977					
Value added††	Payments for materials, components, supplies, and fuels	Payments for construction work sub- contracted to others	Rental payments for machinery, equipment, and structures	Capital expenditures, other than land	End-of-year gross book value of depreciable assets	All employees**	Total construction receipts	Value added††	error (pe	ive star of esti ercent) olumn-	mate for	Location of establish- ment
1	J	к	П	М	N	0	Р	Q	В	н	М	
5 759 626	3 812 686	8 546 408	163 307	166 256	1 706 013	202 070	12 855 514	4 257 546	(W)	(W)	(W)	U.S.
244 421 24 416 41 197 33 009 863 859	· 137 556 13 026 20 083 23 935 311 717	250 366 18 335 67 558 26 149 1 155 139	2 873 1 032 963 1 921 17 379	2 802 1 318 1 021 1 921 14 227	24 880 4 929 8 381 15 346 162 069	10 116 431 772 1 765 8 790	450 506 59 166 59 707 84 916 1 061 105	179 178 31 032 18 915 31 318 282 550	1 7 11 11 2	1 9 7 9	6 23 11 8 1	Ala. Alaska Ariz. Ark. Calif.
85 534	143 538	240 879	2 197	3 497	44 231	2 297	168 119	63 487	3	1	5	Colo.
38 449	22 344	52 001	453	584	11 222	1 574	125 258	40 236	6	4	8	Conn.
17 266	15 122	33 843	321	588	4 674	972	49 477	6 133	6	4	7	Del.
(S)	(D)	(D)	(D)	(D)	(S)	(D)	(D)	(D)	-	-	-	D.C.
125 992	125 543	256 858	3 941	5 001	39 527	5 165	302 999	57 017	3	3	5	Fla.
96 888	89 611	208 910	2 880	6 017	37 890	5 361	291 615	99 194	2	2	2	Ga.
19 452	(D)	20 579	1 077	335	10 304	209	(D)	(D)	5	3	8	Hawaii
15 906	13 916	20 663	833	2 142	6 688	(D)	61 094	23 052	12	10	9	Idaho
255 765	209 171	405 185	6 776	8 167	92 875	11 641	793 279	302 264	2	1	3	III.
153 901	146 387	159 197	2 601	3 833	83 468	5 692	348 778	129 501	1	2	6	Ind.
53 753 47 044 72 655 174 964 7 493	74 643 (D) 40 019 83 268 7 926	46 301 28 948 77 027 99 263 (D)	1 890 1 074 1 683 7 228 106	2 400 2 125 1 143 2 811 597	28 384 17 362 15 920 43 749 2 354	4 141 2 840 2 121 4 944 898	244 687 154 906 116 717 178 362 38 718	79 019 62 255 41 882 84 912 13 686	6 8 7 2 6	5 7 5 2	1 20 9 3 10	lowa Kans. Ky. La. Maine
34 273	30 370	95 260	1 692	1 327	11 864	1 770	128 429	42 642	6	7	6	Md.
105 759	67 453	245 531	3 370	1 933	25 370	3 290	242 936	72 825	3	3	6	Mass.
314 304	110 919	1 036 343	4 007	5 035	62 060	7 322	750 780	181 340	2	1	2	Mich.
51 031	61 673	75 340	1 485	1 312	21 216	3 566	269 572	85 050	6	5	7	Minn.
38 412	50 580	30 260	1 465	3 006	16 615	1 163	70 330	18 937	6	7	15	Miss.
258 877	172 494	434 843	3 741	8 035	113 238	5 399	417 977	122 480	2	1	1	Mo.
10 212	15 548	9 633	317	249	2 816	673	42 863	15 549	14	9	3	Mont.
16 912	20 526	12 326	288	537	9 049	1 460	95 003	27 295	21	14	13	Nebr.
8 511	(D)	17 761	313	386	6 333	310	35 960	12 543	17	13	22	Nev.
11 177	8 730	16 123	523	583	6 634	697	35 890	11 382	9	10	23	N.H.
133 479 24 113 234 401 345 895 15 421	77 483 24 078 142 612 180 377 28 303	224 031 40 247 323 037 383 464 15 924	3 450 686 6 812 13 370 914	2 365 1 012 8 431 11 770 595	33 116 7 949 75 959 111 821 8 292	4 294 407 7 048 7 580 813	336 308 17 840 443 270 385 144 44 244	92 478 7 342 167 601 115 990 18 390	3 10 2 1 1 15	4 7 2 1 13	6 5 3 2 23	N.J. N. Mex. N.Y. N.C. N. Dak.
269 223	164 400	438 913	9 667	11 541	78 134	9 428	677 052	257 253	1	1	2	Ohio
32 820	41 066	48 742	2 005	1 164	11 127	1 540	104 324	32 585	7	6	4	Okla.
28 600	19 933	33 115	1 046	856	13 860	2 048	193 727	51 564	13	14	4	Oreg.
275 787	167 582	367 846	8 335	8 982	89 253	8 788	567 439	181 628	2	1	3	Pa.
18 744	5 510	12 039	278	299	4 091	1 105	109 620	28 465	14	8	7	R.I.
153 672	83 812	136 695	2 509	2 334	23 112	(D)	1 041 127	(D)	2	2	5	S.C.
5 837	4 338	2 795	(D)	(D)	3 228	351	20 005	8 193	21	20	-	S. Dak.
106 351	81 366	150 940	3 451	1 873	27 294	4 432	260 637	72 082	3	3	4	Tenn.
545 955	430 710	585 622	21 431	17 404	140 223	14 758	926 419	300 186	1	1	4	Tex.
29 791	32 524	63 566	1 458	1 929	16 428	1 431	94 375	29 577	6	6	9	Utah
16 344	14 757	23 520	362	672	7 304	322	16 191	5 623	6	7	(W)	Vt.
80 340	82 252	245 582	7 895	4 823	38 797	4 131	254 373	81 761	3	3	3	Va.
82 364	68 444	147 357	2 239	3 200	27 532	3 750	273 587	99 028	5	2	4	Wash.
38 017	20 467	18 498	1 135	923	15 554	1 581	78 246	42 248	7	4	16	W. Va.
88 047	61 408	115 440	1 403	2 447	38 053	3 962	302 254	109 381	3	3	1	Wis.
4 983	*3 232	3 246	182	250	1 840	283	14 241	4 593	11	33	6	Wyo.

Table 2. Detailed Statistics for Establishments With Payroll: 1982 and Earlier Census Years

Item					Relat	ive star stimate	dard er (percer	Tor of
II.O.II	1982	1977	1972	1967	1982	1977	1972	1967
Number of establishments in business during year	7 436	8 259	9 538	8 295	1	2	2	3
Number of establishments in business at end of year	7 229	(NA)	(NA)	(NA)	1	(NA)	(NA)	(NA)
Proprietors and working partners	1 359	2 867	3 976	4 600	5	5	5	5
All employees**	153 959	202 070	173 094	184 960	1	(W)	1	1
Construction workers: March	117 178 124 388 126 709 115 253	151 301 169 142 184 358	129 778 139 413 156 317	142 493 153 966 181 383 159 338	1 1 1	888	1 1	1 1
November	115 253 121 645	177 970 170 787	148 975 144 625	159 338 159 878	1	(W)	1	1
Other employees: March	32 248	30 337	27 762	24 150	1	1	1	1
Construction worker hours (thousands): January to March April to June July to September October to December Total hours worked	52 868 57 189 58 185 51 479 219 723	(NA) (NA) (NA) (NA) (NA)	(NA) (NA) (NA) (NA) (NA)	(AA) (AA) (AA) (AA) (AA)	1 1 1 1 (W)	(NA) (NA) (NA) (NA) (NA)	(NA) (NA) (NA) (NA) (NA)	(NA) (NA) (NA) (NA) (NA)
Payroll, all employees	3 234 149 2 346 960 887 188	2 852 817 2 247 193 605 623	1 729 634 1 356 140 373 494	1 327 593 1 067 884 259 215	(W) (W)	888	1 1	1 1 1
First quarter payroll, all employees	771 649	594 176	(NA)	(NA)	(W)	(w)	(NA)	(NA)
Employer costs for fringe benefits	581 599 432 801 148 797	539 369 315 495 223 875	(NA) (NA) (NA)	(NA) (NA) (NA)	(W) (W)	888	(NA) (NA) (NA)	(NA) (NA) (NA)
All business receipts Total construction receipts Receipts for work subcontracted in from others Land receipts' Other business receipts	18 118 721 17 845 539 835 351 (NA) 273 182	13 063 111 12 855 514 351 937 (NA) 207 597	8 666 746 8 507 370 236 831 (NA) 159 376	6 784 843 6 700 474 149 341 (NA) 84 294	(W) (W) 2 (NA)	(W) (NA)	1 1 3 (NA) 2	1 1 2 (NA) 2
Net construction receipts†	9 299 130	7 545 253	4 805 838	3 648 122	(W)	(W)	1	1
Value added††	5 759 626	4 257 546	2 751 905	2 120 302	(W)	(W)	1	1
Selected payments	12 359 094 3 682 205 8 546 408 130 480 23 994 7 158 90 612 8 715	8 805 565 3 377 489 5 310 261 117 815 21 841 10 203 65 433 20 338	5 914 841 2 213 309 3 701 532 (NA) (NA) (NA) (NA) (NA)	4 653 750 1 603 292 3 057 504 (NA) (NA) (NA) (NA) (NA)	(W) 1 (W) 1 1 1 1 2	1 (W) 1 1 1 1	1 1 (NA) (NA) (NA) (NA) (NA) (NA) (NA) (NA)	1 1 (NA) (NA) (NA) (NA) (NA)
Storage capacity for fuels ³ (thousand gallons)	(NA)	(NA)	(NA)	(NA)	(NA)	(NA)	(NA)	(NA)
Rental payments for machinery, equipment, and structures For machinery and equipment For structures	163 307 129 927 33 380	135 838 114 051 21 787	(NA) 72 513 (NA)	(NA) 57 123 (NA)	1 1 2	1 1	(NA) 2 (NA)	(NA) 1 (NA)
Selected purchased services Communication services Repairs to structures and related facilities Repairs to machinery and equipment	127 209 43 930 8 503 74 775	109 938 40 783 8 403 60 751	2333 2333 2333	(NA) (NA) (NA) (NA)	1 1 2 1	2 5 2 1	(NA) (NA) (NA) (NA)	(NA) (NA) (NA) (NA)
Ownership of construction projects: Total construction receipts	17 845 539 2 208 175 15 637 363	12 855 514 1 343 270 11 512 244	8 507 370 1 375 323 7 132 047	6 700 474 (NA) (NA)	(W) 2 (W)	(W) (W)	1 1 1	1 (NA) (NA)

¹Data were collected separately for establishments classified in SIC 1531, Operative Builders and SIC 6552, Subdividers and Developers, Except Cemeteries. For all other industries, data are included in other business receipts.

²For 1967 and 1972, includes data for power, fuels, and lubricants.

³Data were collected only for establishments classified as heavy construction contractors.

Table 3. Assets, Capital Expenditures, and Depreciation for Establishments With Payroll: 1982 and Earlier Census Years

						ive stan		
ltem	1982	1977	1972	1967	1982	stimate 1977	1972	1967
STRUCTURES, MACHINERY, AND EQUIPMENT	1002		10.2	1007	1002	1077	1072	100
Beginning-of-year gross book value of depreciable assets	1 601 505 166 256 132 342 33 913 61 748	(NA) 186 722 156 757 29 965 (NA)	(NA) 97 248 79 447 17 801 (NA)	(NA) 64 696 54 361 10 335 (NA)	1 1 1 3 5	(NA) 2 2 3 (NA)	(NA) 2 2 4 (NA)	(NA
End-of-year gross book value of depreciable assets	1 706 013	1 122 051	699 057	(NA)	1	1	2	(NA
Depreciation charges during year	193 618	102 636	73 741	(NA)	1	1	6	(NA
Beginning-of-year gross book value of depreciable assets Capital expenditures, other than land New structures and related facilities Used structures and related facilities Retirements and disposition of depreciable assets	364 823 36 278 29 508 6 770 13 793	(NA) 50 275 43 594 6 681 (NA) 340 453	(NA) 27 447 24 293 3 154 (NA)	(NA) 19 523 15 706 3 817 (NA)	2 3 3 3 19	(NA) 6 6 6 (NA)	(NA) 6 4 8 (NA)	(NA 11 19 (NA
Depreciation charges during year		16 391	12 620	(NA)	2	2	3	(NA
Machinery and Equipment Beginning-of-year gross book value of depreciable assets Capital expenditures, other than land New machinery and equipment, including automobiles and trucks. New automobiles and trucks, intended primarily for highway use Used machinery and equipment, including automobiles and trucks Retirements and disposition of depreciable assets	129 978	(NA) 136 449 113 164 50 704 23 285 (NA)	(NA) 69 801 55 154 (NA) 14 647 (NA)	(NA) 45 173 38 655 (NA) 6 518 (NA)	1 2 1 3 4 2	(NA) 2 1 1 4 (NA)	(NA) 3 2 (NA) 4 (NA)	(NA
End-of-year gross book value of depreciable assets	1 318 705	781 597	440 587	(NA)	1	1	2	(NA
Depreciation charges during year	164 554	86 245	61 121	(NA)	1	1	7	(NA

Table 4. Value of Inventories for Establishments With Payroll: 1982 and 1981

[Thousand dollars. Detail may not add to total due to rounding. For meaning of abbreviations and symbols, see introductory text. For explanation of terms, see appendix]

Item	Establishments with payroll	Relative standard error of estimate (percent)
All establishments: Number Total construction receipts	7 436 17 845 539	, 1 (W)
Establishments with inventories: Number	1 493 4 366 965	7
End of 1982, total Value for establishments with LIFO reserve	97 079 9 958 7 290 87 121	2 8 11 2
End of 1981, total Value for establishments with LIFO reserve Amount of LIFO reserve Value for establishments with no LIFO reserve	99 436 5 788 2 922 93 648	1 13 27 2
Establishments with no inventories: Number Total construction receipts	5 943 13 478 574	1 (W)

¹Inventories at cost or market prior to any adjustment to correct to LIFO values.

Table 5. Selected Statistics for Establishments With Payroll by Employment Size Class: 1982 and 1977

		Establishments with an average of—											
Selected statistics	Total	1 to 4 employees	5 to 9 employees	10 to 19 employees	20 to 49 employees	50 to 99 employees	100 to 249 employees	250 to 499 employees	500 to 999 employees	1,000 employees or more			
1982													
Number of establishments	7 436 153 959 3 234 149 219 723 18 118 721 17 845 539 9 299 130	2 773 6 138 80 974 6 822 568 761 563 758 325 915	1 693 11 356 186 544 12 798 1 086 287 1 069 927 631 597	1 355 18 611 338 504 21 884 1 894 543 1 871 921 1 067 741	1 082 32 826 668 520 43 368 3 927 027 3 881 230 2 026 652	329 22 378 476 904 31 606 2 632 204 2 607 320 1 387 884	144 20 543 440 796 30 480 2 484 945 2 453 358 1 157 755	32 10 064 232 578 14 155 1 025 707 970 572 537 067	16 10 344 277 622 17 030 4 499 245 2 420 988 1 102 863	21 697 531 706 41 576 (D 2 006 464 1 061 655			
Value added††	5 759 626 3 812 686 8 546 408 163 307 166 256 1 706 013	174 488 156 429 237 843 4 941 7 526 98 010	367 741 280 217 438 329 10 786 15 737 160 632	600 296 490 067 804 179 15 507 21 438 241 206	1 158 514 913 935 1 854 578 33 992 42 609 357 185	840 575 572 192 1 219 436 27 383 26 133 246 967	654 716 534 625 1 295 603 23 598 18 884 205 847	322 205 269 997 433 505 8 834 10 961 99 267	803 557 595 223 1 318 125 15 459 8 457 109 562	837 53 ⁻ (D 944 809 22 806 14 509 187 338			
All employees** Total construction receipts Value added†† 1982 RELATIVE STANDARD ERROR OF ESTIMATE (PERCENT)	202 070 12 855 514 4 257 546	6 478 398 504 108 089	12 588 860 325 262 415	22 063 1 446 649 476 452	38 731 2 860 116 925 957	28 687 2 102 811 709 660	21 805 1 469 948 463 403	20 809 1 389 675 368 780	9 416 497 589 225 300	41 494 1 829 897 717 490			
All employees** Net construction receiptst Capital expenditures, other than land	(W)	4 4 13	4 4 11	3 2 5	1 1 1	(%) (%) (%)	(X) (X) (X)	(S) (S) (S)	(W) (W) (W)	(W (W (W			

Note: Underscored data fields include data from adjoining columns which have been withheld to avoid disclosing data for individual companies.

Table 6. Selected Statistics for Establishments With Payroll by Receipts Size Class: 1982 and 1977

[Thousand dollars. Detail may not add to total due to rounding. For meaning of abbreviations and symbols, see introductory text. For explanation of terms, see appendix]

			Establishments with all business receipts of—									
Selected statistics	Total	Less than \$25,000	\$25,000 to \$49,999	\$50,000 to \$99,999	\$100,000 to \$249,999	\$250,000 to \$499,999	\$500,000 to \$999,999	\$1,000,000 to \$2,499,999	\$2,500,000 to \$4,999,999	\$5,000,000 to \$9,999,999	\$10,000,000 or more	
1982												
Number of establishments All employees** Payroll, all employees Construction worker hours (thousands) All business receipts Total construction receipts Net construction receipts†	7 436 153 959 3 234 149 219 723 18 118 721 17 845 539 9 299 130	352 394 1 317 301 4 456 4 440 2 856	303 562 3 423 479 11 175 11 080 7 873	623 1 386 12 122 1 383 45 077 44 506 34 189	1 285 5 251 56 055 5 198 209 194 207 035 156 561	1 217 7 592 105 103 8 681 440 315 434 474 304 603	1 049 11 122 175 730 12 824 751 456 739 611 498 500	1 325 22 679 414 771 28 874 2 071 552 2 044 597 1 251 221	20 302 416 224 28 087 2 122 548 2 096 631 1 187 252	379 20 761 456 239 28 206 2 634 018 2 599 495 1 372 188	294 63 908 1 593 163 105 684 9 828 930 9 663 668 4 483 886	
Value added†† Payments for materials, components, supplies,	5 759 626	1 737	4 665	20 932	93 280	183 734	291 430	688 412	673 189	821 223	2 981 021	
and fuels Payments for construction work subcontracted to others	3 812 686 8 546 408	1 134 1 584	3 303 3 207	13 828 10 316	65 439 50 474	126 709 129 871	218 913	589 763 793 376	539 980 909 378	585 488 1 227 307	1 668 127 5 179 782	
Rental payments for machinery, equipment, and structures Capital expenditures, other than land End-of-year gross book value of depreciable assets	163 307 166 256 1 706 013	54 (D) 1 644	111 117 3 075	431 828 11 821	2 786 3 865 54 683	4 763 10 071 91 632	8 064 11 168 132 147	22 227 22 770 260 624	18 621 26 142 241 727	26 107 27 780 233 956	80 141 63 512 674 700	
1977	1 700 010	1 644	3 0/0	11 021	04 000	31 002	102 147	200 024	241 727	200 300	074 700	
All employees** Total construction receipts Value added††	202 070 12 855 514 4 257 546	548 4 235 1 556	923 15 414 5 018	2 203 58 725 22 381	8 098 270 340 94 853	11 063 486 568 170 960	16 921 896 092 323 369	33 100 2 105 282 731 551	27 661 1 976 390 663 017	1101 555 17 042 469 12 244 841	(NA) (NA) (NA)	
1982 RELATIVE STANDARD ERROR OF ESTIMATE (PERCENT)												
All employees** Net construction receipts† Capital expenditures, other than land	(W) 1	8 10 -	11 10 47	7 7 30	6 5 16	4 5 14	4 4 9	2 3 6	(%) (%) (%)	\$\$\$ \$\$\$	(%) (%)	

Note: Underscored data fields include data from adjoining columns which have been withheld to avoid disclosing data for individual companies.

Data for this size class include establishments with receipts of \$10,000,000 or more, which were not tabulated separately in 1977.

Table 7. Construction Receipts for Establishments With Payroll by Type of Construction: 1982 and 1977

[Thousand dollars. Detail may not add to total due to rounding. For meaning of abbreviations and symbols, see introductory text. For explanation of terms, see appendix]

Total construction receipts\$			Construc	tion receipts					
Total Construction receipts			New co	nstruction			mate (p	ercent)	
Total construction receipts\$	Type of construction	Total	Total				colur	nn—	
Total construction receipts\$		A	В	С	D	Α	В	С	D
Building construction	1982								
Single-family houses, attached 108 870 89 509 38 833 16 381 4 4 6 6 1 1 1 1 1 1 1 1	Total construction receipts‡	17 845 539	16 586 198	3 104 280	1 259 340	(W)	(W)	1	1
Single-family houses, attached 108 870 89 509 38 833 16 381 4 4 6 6 1 1 1 1 1 1 1 1	Building construction	17 359 132	16 165 251	3 059 348	1 193 880	(w)	(w ₂	1	
Office and bank buildings	Single-family houses, detached	105 870	89 509	38 833	16 361	4		6	1 6
Office and bank buildings	Single-family houses, attached	62 494	60 968	6 806	1 526	4	4	7	19
Office and bank buildings	Apartment buildings with two or more apartments	164 967	158 525		6 441	2	2	5 9	13
Industrial buildings and warehouses	Office and bank buildings	1 431 618	1 379 560	253 455	52 058	1	1	1	1
Industrial buildings and warehouses	Office buildings	1 12/ 53/	1 083 651	204 536	43 886	1	1	2	5
Industrial buildings	Bank buildings and other tinancial institutions		295 908	48 918	8 172	1 000	040	3	1 5
Warehouses	Industrial buildings	11 809 491	10 874 470	2 027 216	935 020	l W	l W	1	
Nonbuilding construction	Warehouses	2 193 945	2 079 125	302 625	114 819	1	1		3
Nonbuilding construction	Stores, restaurants, public garages, and automobile service stations	465 324		91 097	21 960	1	1	2	3
Nonbuilding construction	religious buildings	269 354	256 274		13 079	5	5	3	8
Nonbuilding construction	Hospitals and institutional buildings	481 741	466 109	157 584	15 632	(W)	(W)	1	3
Construction work, n.s.k.	Other nonresidential buildings	155 292	146 617	32 465	8 679	9	10	6	17
Construction work, n.s.k.									
Construction work, n.s.k.	Nonbuilding construction Source treatment plants	480 050		44 753	2 556	1	ΛΛΛ	MA	040
Construction work, n.s.k.	Power plants	6 315	5 280	2 706	1 034	l W	l W	W	l W
Total construction receiptst	Other nonbuilding construction	357 028	296 216	32 128	60 812	1	` 1	1	4
Total construction receipts; 12 855 514 11 363 166 (NA) 1 492 348 (W) 1 (NA)	Construction work, n.s.k.	6 356	5 298	*178	1 057	16	18	56	30
Building construction	1977								
Apartment buildings with two or more apartments 115 485 104 452 (NA) 11 033 1 1 (NA) 1 033 1 1 (NA)	Total construction receiptst	12 855 514	11 363 166	(NA)	1 492 348	(w)	1	(NA)	1
Apartment buildings with two or more apartments 115 485 104 452 (NA) 11 033 1 1 (NA) 1 033 1 1 (NA)	Ruilding construction	11 004 261	10 541 226	(MA)	1 440 105	, and	OAD.	(NA)	
Apartment buildings with two or more apartments 115 485 104 452 (NA) 11 033 1 1 (NA) 1 033 1 1 (NA)	Single-family houses	151 192		(NA)	39 781	(77)	(10)	(NA)	3
Office and bank buildings 627 834 552 386 (NA) 75 448 1 1 (NA) Industrial buildings and warehouses 9 742 170 8 562 607 (NA) 1 179 563 (W) (W) (NA) 338 134 (NA) 338 134 (NA) 338 134 (NA) 33 697 1 1 (NA) 1 1 (NA)	Apartment buildings with two or more apartments	115 485	104 452	(NA)	11 033	1 1	1	(NA)	8
Industrial buildings and warehouses	Other residential buildings	65 206	60 665	(NA)	4 541	2		(NA)	1 3
Stores, restaurants, public garages, and automobile service stations 371 831 338 134 (NA) 33 697 1 1 (NA) Religious buildings 95 475 85 255 (NA) 10 220 1 1 (NA) (NA) 27 230 1 1 (NA) (NA) 27 230 1 1 (NA) (NA) 27 230 1 (NA) (NA) 27 230 1 (NA) (NA) 27 230 1 (NA)	Office and bank buildings	027 034	332 360	(147)	75 446			(1474)	<u> </u>
Religious buildings	Industrial buildings and warehouses	9 742 170	8 562 607	(NA)	1 179 563	(w)	(W)	(NA)	1
Educational buildings	Stores, restaurants, public garages, and automobile service stations	371 831	338 134	(NA)	33 697	1	1	(NA)	4
Hospitals and institutional buildings	Heligious Dullarings	95 4/5 277 434	250 204	(NA)	27 230	}	1	(NA)	3
Nonbuilding construction 84 668 75 020 (NA) 9 648 5 5 (NA) 75 020 (NA	Lucational buildings	277 454	250 204	(147)	27 250	'		(11/7)	ا "
Nonbuilding construction 84 668 75 020 (NA) 9 648 5 5 (NA) 75 020 (NA	Hospitals and institutional buildings	368 390	323 162	(NA)	45 228	1	1	(NA)	1
Nonbuilding construction 84 668 75 020 (NA) 9 648 5 5 (NA) 75 020 (NA	Amusement, social, and recreational buildings	84 677	77 942	(NA)	6 735	2	2	(NA)	1
Other nonbuilding construction	Other nonresidential buildings	84 668	75 020	(NA)	9 648	5	5	(NA)	4
Other nonbuilding construction	Nonhuilding construction	967 505	818 604	(NA)	48 044	/w	AND.	(NA)	
Other nonbuilding construction	Sewage treatment and water treatment plants	152 208	150 328		1 880	W	W	(NA)	6
Other nonbuilding construction	Power plants	464 404	452 864	(NA)	11 540	(w)	(W)	(NA)	2
	Other nonbuilding construction	250 983	215 492	(NA)	35 491	1	1	(NA)	1
	Construction work, n.s.k.	3 615	3 139	(NA)	476	3	3	(NA)	(w)

¹For 1977, separate data were not collected. These data are included with "New Construction."

Table 8. Selected Statistics for Establishments With Payroll by Specialization in Types of Construction: 1982

[Thousand dollars. Detail may not add to total due to rounding. This table presents selected statistics for establishments according to degree of specialization in major types of construction work. If number of establishments or total receipts for a given type of specialization are relatively insignificant, data may not be shown. In addition, data are not shown in this table where distribution of construction receipts by type of construction was not provided in table 7. For meaning of abbreviations and symbols, see introductory text. For explanation of terms, see appendix]

				Total constru	ction receipts			Payments for		Relative	
ltem	Number of establishments	All employees**	Payroll, all employees	For all types	For specialized type	Net construction receipts†	Value added††	construction work sub- contracted to others	of (per	estima rcent) olumn-	ate for
	А	В	С	D	Е	F	G	н	В	D	Н
All establishments	7 436	153 959	3 234 149	17 845 539	11 572 583	9 299 130	5 759 626	8 546 408	1	(W)	(W)
Establishments not specializing by typeEstablishments specializing 51 percent or more	1 501 5 935	31 992 121 967	646 537 2 587 611	3 890 662 13 954 877	(NA) 11 572 583	1 932 275 7 366 855	1 063 317 4 696 309	1 958 386 6 588 021	1 1	1 (W)	(W)
WAREHOUSES											
All establishments specializing in type	972	13 527	241 456	1 583 046	1 248 506	816 780	406 070	766 265	2	2	1
Establishments with— 100 percent specialization — 90 to 99 percent specialization — 80 to 89 percent specialization — 70 to 79 percent specialization — 60 to 69 percent specialization — 51 to 59 percent specialization —	378 99 94 151 175 74	4 564 1 604 966 1 934 2 989 1 470	79 799 25 782 17 000 34 822 55 791 28 261	423 393 222 674 106 979 236 804 374 151 219 044	423 393 211 256 87 663 172 597 232 451 121 144	286 964 72 769 54 496 123 588 184 855 94 107	140 725 11 905 29 913 67 593 96 534 59 399	136 429 149 905 52 483 113 215 189 296 124 937	4 6 9 9 5 6	3 4 7 4 4 3	2 4 6 4 4 2
INDUSTRIAL BUILDINGS											
All establishments specializing in type	4 863	107 742	2 337 013	12 332 678	10 293 230	6 521 071	4 270 806	5 811 606	1	(W)	(W)
Establishments with— 100 percent specialization	2 797 366 444 461 554 240	44 961 11 612 12 632 10 392 17 739 10 404	939 116 281 472 274 374 214 924 401 534 225 592	4 364 526 1 362 253 2 278 817 1 139 050 1 949 161 1 238 870	4 364 526 1 285 345 1 892 408 833 691 1 244 063 673 196	2 738 339 660 611 834 143 618 006 1 051 686 618 285	1 828 324 510 316 521 838 346 402 723 172 340 753	1 626 186 701 642 1 444 674 521 043 897 475 620 585	1 2 1 2 1 1	1 1 1 2 1	1189111

Table 9. Quarterly Construction Worker Hours and Employment for Establishments With

		Average		January t	o March	April to	June
Location of establishment	Number of establishments	number of construction workers	Construction worker hours (thousands)	Construction workers ¹	Hours worked (thousands)	Construction workers ¹	Hours worked (thousands)
	А	В	С	D	Е	F	G
United States	7 436	121 645	2 19 72 3	117 178	52 868	124 388	57 189
Alabama	108	7 303	15 417	7 524	4 009	8 247	4 320
	47	633	903	548	189	677	232
	88	594	1 009	595	243	562	249
	62	825	1 426	710	297	908	401
	692	8 627	14 086	8 847	3 473	8 613	3 618
Colorado Connecticut Delaware District of Columbia Florida	122	1 950	3 607	1 920	898	1 827	859
	94	743	1 357	692	316	692	322
	29	509	949	430	195	478	223
	8	(S)	(S)	(S)	(S)	(S)	(S)
	323	4 020	7 083	4 032	1 736	3 804	1 648
Georgia	155	3 213	6 042	3 651	1 673	3 250	1 565
	12	270	492	259	111	272	127
	69	389	634	291	99	337	148
	339	4 378	7 396	3 913	1 700	4 566	1 911
	175	5 045	6 980	4 484	1 513	4 972	1 752
lowaKansasKentuckyLouisianaMaine	117	1 807	3 034	1 376	566	1 743	712
	108	1 034	1 925	995	446	1 101	531
	113	1 516	2 620	1 499	645	1 485	671
	178	4 693	8 422	4 991	2 180	4 563	2 265
	20	425	388	148	43	594	127
Maryland	81	1 053	1 896	920	424	981	465
	190	2 299	3 573	2 095	789	2 264	864
	328	3 283	5 554	2 930	1 327	3 152	1 268
	135	1 302	2 243	984	432	1 311	557
	64	1 191	2 287	1 069	471	1 308	636
Missouri Montana Nebraska Nevada New Hampshire	169	5 044	8 581	5 102	2 013	5 827	2 555
	23	167	266	174	70	146	55
	56	533	957	360	152	434	205
	40	158	194	158	50	148	47
	27	341	649	282	139	328	157
New Jersey	253	2 909	4 528	2 811	1 084	2 853	1 116
	54	744	1 074	727	256	712	263
	407	4 402	7 486	3 604	1 587	4 377	1 851
	186	7 711	21 350	8 235	5 795	8 224	5 761
	62	586	911	475	184	507	206
OhioOklahomaOklahomaOregonPennsylvaniaRhode Island	400	4 949	8 102	3 984	1 643	4 857	2 012
	99	992	1 684	1 104	463	942	401
	102	614	842	617	202	731	267
	382	5 191	9 176	4 564	2 043	5 385	2 424
	32	212	416	225	116	232	116
South CarolinaSouth DakotaTennesseeTexasUtah	90	4 741	9 297	4 332	2 070	4 559	2 244
	28	161	276	121	47	148	63
	138	3 009	4 977	2 912	1 210	3 210	1 322
	548	12 310	23 040	13 283	6 144	12 827	6 281
	88	880	1 403	655	255	765	302
Vermont	18	460	888	409	192	452	212
	148	3 550	6 510	3 704	1 633	3 834	1 760
	197	1 697	2 486	1 626	580	1 830	685
	47	846	1 323	795	306	912	353
	145	2 050	3 414	1 716	701	2 144	889
	29	93	159	121	51	98	45

¹Sum of construction workers during pay periods including 12th of March, May, August, and November.

Payroll by State: 1982

July to Se	ptember	October to I	December											
Construction workers ¹	Hours worked (thousands)	Construction workers ¹	Hours worked (thousands)		Relative standard error of estimate (percent) for column							Location of establish- ment		
н	1	J	к	В	С	D	Е	F	G	Н	ı	J	К	illelik
126 709	58 185	115 253	51 479	(W)	(W)	(W)	(W)	(W)	(W)	(W)	(W)	(W)	(W)	U.S.
7 331 697 585 985 8 703	3 911 259 258 420 3 636	6 041 596 592 675 8 091	3 176 221 258 306 3 358	1 7 11 11 2	(W) 5 9 11	1 8 13 11	(W) 7 11 11 1	1 7 11 12 2	(W) 7 11 12 1	1 9 10 13 2	(W) 9 9 12 1	1 8 11 16 3	1 6 10 16	Ala. Alaska Ariz. Ark. Calif.
2 169 800 523 (S) 4 387	995 377 257 (S) 2 007	1 850 743 592 (S) 3 804	854 342 272 (S) 1 690	3 7 6 - 3	2 6 5 - 3	2 7 7 - 3	2 8 9 - 3	3 7 7 - 3	3 8 7 - 4	3 7 6 - 3	3 8 6 - 3	3 7 4 - 3	3 7 4 - 4	Colo. Conn. Del. D.C. Fla.
3 137 272 570 4 599 5 735	1 506 129 247 2 003 2 010	2 741 274 334 4 240 4 897	1 297 124 139 1 781 1 704	2 5 13 2 1	2 4 15 2 2	2 5 17 2 2	2 5 20 3 2	2 5 12 3 1	2 4 18 3 2	2 5 12 2 1	2 5 18 2 2	2 4 18 2 1	3 4 22 2 2	Ga. Hawaii Idaho III. Ind.
2 150 1 057 1 505 4 244 439	941 513 678 1 934 93	1 871 939 1 489 4 943 516	814 433 624 2 041 123	6 8 6 2 6	4 7 7 2 14	6 7 7 3 13	5 7 8 3 31	6 8 7 4 4	5 7 7 4 12	6 8 6 3 7	5 8 7 2 18	6 9 7 2 6	5 9 8 2 15	lowa Kans. Ky. La. Maine
1 203 2 396 3 669 1 499 1 212	530 967 1 611 664 597	1 069 2 364 3 219 1 362 1 173	476 951 1 347 589 581	6 3 2 6 6	63 26 6	6 4 2 7 7	7 4 2 7 6	7 3 2 6 6	7 4 3 6 6	5 3 2 7 6	7 4 2 8 6	6 4 2 6 6	7 4 2 6 7	Md. Mass. Mich. Minn. Miss.
5 043 162 741 168 402	2 291 67 331 56 182	4 115 180 585 125 349	1 721 72 267 40 169	2 11 12 19 7	2 11 12 17 7	1 12 12 19 6	2 15 14 23 7	2 4 12 20 7	2 10 12 28 8	4 11 13 17 8	3 13 13 26 8	2 22 16 19 7	2 25 18 22 8	Mo. Mont. Nebr. Nev. N.H.
3 127 778 5 067 7 933 669	1 184 295 2 166 5 536 263	2 764 733 4 409 6 390 642	1 141 259 1 882 4 256 257	4 11 3 1 16	3 10 3 (W) 11	4 12 3 1 15	4 10 3 (W) 14	4 13 3 1 20	4 11 3 (W) 13	12 3 2 17	4 13 3 1 11	4 11 3 1 15	4 10 3 1 15	N.J. N. Mex. N.Y. N.C. N. Dak.
5 461 960 547 5 535 195	2 293 418 196 2 435 97	5 242 905 546 5 088 172	2 153 400 176 2 273 85	2 8 14 2 13	2 5 13 2 14	2 10 16 2 12	2 9 16 2 15	2 8 15 2 13	2 6 17 2 16	2 8 14 2 13	2 6 15 2 19	2 7 14 2 15	2 7 15 2 20	Ohio Okla. Oreg. Pa. R.I.
4 706 168 3 006 12 268 1 024	2 360 70 1 316 5 756 392	5 320 212 2 860 10 697 1 055	2 621 94 1 127 4 858 452	2 19 3 1 5	1 18 3 1 6	2 21 2 1 8	1 26 3 1 9	2 18 4 1 7	1 21 3 1 8	2 19 3 1 5	1 20 4 1 7	2 27 2 1 5	1 29 3 1 9	S.C. S. Dak. Tenn. Tex. Utah
492 3 423 1 736 904 2 050 80	239 1 612 678 364 892 33	480 3 183 1 506 760 2 253 65	245 1 504 542 300 932 29	7 3 6 6 2	7 2 4 5 2 12	6 4 5 8 2 13	8 2 5 6 3 14	12 3 9 7 2	10 2 8 7 3	4 4 6 5 3	6 3 7 5 3 23	6 4 6 5 2 15	6 3 5 5 3 23	Vt. Va. Wash. W. Va. Wis. Wyo.

Table 10. Construction Receipts for Establishments With Payroll by Location of Construction Work: 1982 and 1977

Location of construction work	Construction	establishme	work done by nts located in State	Construction work done by establishments not located in this State		1977 construction	Percent change 1982/	Relative standard error of estimate (percent) for column—		nate or
	receipts for work done in this State	Number	Construction receipts	Number	Construction receipts	receipts for work done in this State	1977 (col A÷F)		olumi-	
the state of the s	А	В	С	D	E	F	G	Α	С	E
United States	17 845 539	7 239	14 269 415	2 297	3 576 123	12 855 514	38.8	(W)	(W)	(W)
Alabama Alaska Arizona Arkansas California	258 426 57 877 237 066 117 141 2 407 698	107 47 88 62 690	232 896 55 225 125 296 73 748 2 223 516	39 11 16 43 41	25 529 2 652 111 770 43 393 184 182	397 937 75 886 70 387 124 946 1 045 505	-35.1 -23.7 236.8 -6.2 130.3	3 9 3 8 1	3 10 6 12 1	8 24 (W) 3 2
Colorado	367 130 114 322 72 412 35 667 630 864	120 88 28 5 323	255 647 101 788 55 887 (D) 483 937	44 35 22 10 65	111 483 12 533 16 525 (D) 146 926	169 528 149 685 50 094 5 283 368 711	116.6 -23.6 44.6 575.1 71.1	2 6 2 1 2	2 4 3 - 3	2 36 3 - 1
Georgia Hawaii	511 946 52 505 47 425 866 861 478 071	155 12 66 328 165	344 691 (D) 38 356 616 145 410 251	85 2 36 98 78	167 254 (D) 9 068 250 715 67 819	441 364 17 885 61 638 808 745 397 371	16.0 193.6 -23.1 7.2 20.3	2 3 7 1 2	2 8 2 2	1 19 2 8
lowa Kansas Kentucky Louisiana Maine	189 593 132 695 248 261 477 907 39 639	116 98 109 178 20	153 647 82 813 173 209 327 971 24 978	62 66 86 51 20	35 945 49 881 75 052 149 936 14 661	314 930 200 584 156 685 229 156 77 603	-39.8 -33.8 58.4 108.6 -48.9	4 8 4 2 4	5 11 6 3 7	2 5 3 (W)
Maryland Massachusetts Michigan Minnesota Mississippi	210 112 436 010 1 195 228 181 445 134 528	81 187 320 125 60	147 604 400 512 1 047 700 158 604 98 096	53 50 55 55 57	62 508 35 497 147 528 22 841 36 432	130 132 256 286 715 214 218 989 91 021	61.5 70.1 67.1 -17.1 47.8	3 1 4 5	4 2 1 4 6	4 15 1 12 8
Missouri Montana Nebraska Newada New Hampshire	937 498 45 224 64 323 40 922 34 700	162 23 46 40 25	(D) 25 837 44 140 28 661 25 663	51 28 41 19 9	(D) 19 387 20 182 12 260 9 036	306 123 50 668 106 303 43 194 35 692	206.2 -10.7 -39.5 -5.3 -2.8	1 7 11 8 9	12 16 11 12	55 (X)
New Jersey	418 774 115 154 671 587 505 001 72 430	247 54 395 182 62	385 322 80 866 577 266 402 170 50 099	50 23 47 40 29	33 452 34 287 94 321 102 830 22 330	340 949 27 850 436 517 411 372 56 567	22.8 313.5 53.9 22.8 28.0	3 4 2 2 10	4 6 2 2 14	2 1 (W) 1 2
Ohio Oklahoma Oregon Pennsylvania Rhode Island	652 349 219 416 90 411 760 802 31 771	389 98 97 352 32	566 743 115 750 68 465 679 472 29 871	85 78 33 62 13	85 606 103 665 21 945 81 329 1 900	621 284 186 630 198 095 555 711 43 131	5.0 17.6 -54.4 36.9 -26.3	2 4 9 2 9	2 7 10 1 9	1 1 14 4 24
South Carolina	374 761 12 854 344 890 1 574 942 116 951	87 23 135 539 88	246 770 10 666 219 249 1 374 581 109 531	41 20 46 78 17	127 990 2 188 125 640 200 361 7 419	370 241 40 227 288 157 1 007 312 88 250	1.2 -68.0 19.7 56.4 32.5	2 13 3 1 7	3 16 4 1 7	2 12 1 2 6
Vermont Virginia Washington West Virginia Wisconsin Wyoming	51 126 430 211 385 343 93 371 252 295 47 575	18 143 197 47 140 29	48 823 313 326 (D) 48 567 234 818 8 885	11 76 46 78 42 48	2 302 116 884 (D) 44 804 17 477 38 689	19 560 339 500 254 670 122 961 277 412 51 697	161.4 26.7 51.3 -24.1 -9.1 -8.0	6 2 2 3 3 7	6 3 - 7 3 19	14 1 - 1 3 8

Table 11. All Business Receipts for Establishments With Payroll by Kind of Business Activity: 1982 and 1977

[Thousand dollars. Detail may not add to total due to rounding. Based on their primary business activity or combination of activities, establishments were classified into this specific industry. These establishments, however, may also be engaged in other kinds of business activities. For meaning of abbreviations and symbols, see introductory text. For explanation of terms, see appendix]

Primary and other kinds of business activities	All busine	ss receipts	Relative standard error of estimate (percent)		
	1982	1977	1982	1977	
All kinds of business	18 118 721	13 063 111	(W)	1	
General building contractor Operative builder Investment builder Highway and street contractor Heavy construction contractor	14 788 857 53 948 50 605 128 514 431 250	11 985 105 47 345 57 043 54 189 160 014	(W) 3 5 1	1 4 2 1 (W)	
Construction management	1 399 909 745 55 144 89 678 2 844	228 768 13 223 (NA) 17 592 30 314	1 11 5 4 6	2 4 (NA) 3 1	
Plumbing contractor	22 706 31 516 8 908 126 931 106 862	(NA) (NA) 19 734 77 306 (NA)	6 7 9 1	(NA) (NA) 4 1 (NA)	
Manufacturing	33 986 29 170 20 281 10 771 726 096	(NA) 20 736 25 333 (NA) 326 409	3 2 5 7 8	(NA) 2 3 (NA) 4	

Table 12. Profile of Establishments With Payroll in This Industry: 1982 and Earlier Census Years

[For meaning of abbreviations and symbols, see introductory text. For explanation of terms, see appendix]

For meaning of abbreviations and symbols, see introductory text. For explanation of terms, see appendix				
Selected statistics	1982	1977	1972	Relative standard error of estimate (percent) for 1982
AVERAGE PER ESTABLISHMENT				
Number of employees**	20.7 16.4 4.3 434.9 315.6 119.3	24.5 20.7 3.7 345.4 272.1 73.3	18.2 15.2 2.9 181.3 142.2 39.2	1 1 1 (W) (W)
All business receipts	2 436.6 2 399.9 512.7 1 149.3 22.4 229.4	1 581.7 1 556.6 423.2 643.0 22.6 135.9	908.7 891.9 232.1 388.1 10.2 73.3	(W) (W) 1 (W) 1 1
AVERAGE PER EMPLOYEE Payroll, all employees	21.0 117.7 37.4	14.1 64.7 21.1	10.0 50.1 15.9	(W) (W) (W)
AVERAGE PER CONSTRUCTION WORKER				
Construction worker wages	19.3 146.7 1.8	13.2 75.3 (NA)	9.4 58.8 (NA)	(W) (W) (W)
AVERAGE PER OTHER EMPLOYEE				
Other employee salaries \$1,000_	27.5	20.0	13.5	1
AVERAGE PER DOLLAR OF TOTAL CONSTRUCTION RECEIPTS				
Payroll, all employees	.181 .214 .479 .009 .009	.222 .272 .413 .015	.203 .260 .435 .011 (NA)	(W) 1 (W) 1

Table 13. Selected Industry Ratios for Establishments With Payroll by State: 1982

[For meaning of abbreviations and symbols, see introductory text. For explanation of terms, see appendix]

[FOI THEATING OF ADDIEVIATIONS AND SYMBOLS, See INTRODUCTORY	TONE TO OAPIG		, coo apponding		Average per dollar of total construction receipts					
Location of establishment	Average number of employees** per estab- lisment	Payroll per employee (\$1,000)	Construction worker hours per construction worker (thousands)	Total construction receipts per construction worker (\$1,000)	Payroli, all employees	Payments for materials, components, supplies, and fuels	Payments for construction work sub-contracted to others	Capital expenditures, other than land	Rental payments for machinery, equipment, and structures	
United States	20.7	21.0	1.8	146.7	.181	.214	.479	.009	.009	
Alabama	78.0 17.3 9.4 15.9 16.2	20.8 24.8 20.7 17.0 26.4	2.1 1.4 1.7 1.7	86.2 87.2 214.7 99.1 267.1	.279 .364 .134 .205 .129	.218 .236 .157 .293 .135	.398 .332 .530 .320 .501	.004 .024 .008 .023 .006	.005 .019 .008 .023 .008	
Colorado	21.2 10.9 21.6 (S) 15.6	22.8 20.8 17.5 (S) 17.7	1.8 1.8 1.9 (S)	239.7 149.2 129.0 (S) 125.7	.126 .192 .167 (S) .177	.307 .202 .230 (D) .248	.515 .469 .515 (D) .508	.007 .005 .009 (D) .010	.005 .004 .005 (D)	
Georgia Hawaii Idaho Illinois Indiana	25.7 28.1 7.2 18.1 34.8	16.0 27.9 15.0 25.4 20.0	1.9 1.8 1.6 1.7 1.4	121.6 187.3 127.5 192.1 90.0	.163 .186 .150 .185 .269	.229 (D) .281 .249 .323	.535 .407 .417 .482 .351	.015 .007 .043 .010 .008	.007 .021 .017 .008 .006	
lowa Kansas Kentucky Louisiana Maine	18.5 11.9 16.7 31.0 23.4	18.2 17.8 18.9 19.9 8.9	1.7 1.9 1.7 1.8 .9	94.1 106.7 124.9 75.1 69.2	.232 .207 .189 .311 .142	.439 (D) .211 .236 .269	.272 .262 .407 .282 (D)	.014 .019 .006 .008 .020	.011 .010 .009 .021 .004	
Maryland	16.8 15.8 14.0 12.9 22.9	19.4 20.6 24.4 20.1 14.4	1.8 1.6 1.7 1.7 1.9	151.1 181.8 443.1 142.1 95.5	.167 .149 .077 .190 .186	.191 .161 .076 .333 .445	.599 .588 .712 .407 .266	.008 .005 .003 .007 .026	.011 .008 .003 .008 .013	
Missouri	37.2 10.1 14.2 5.6 15.6	23.5 21.1 13.6 18.1 15.4	1.7 1.6 1.8 1.2 1.9	170.8 211.0 91.1 214.0 105.6	.172 .139 .223 .120 .181	.200 .441 .423 (D) .243	.505 .273 .254 .525 .448	.009 .007 .011 .011 .016	.004 .009 .006 .009 .015	
New Jersey	14.4 17.1 14.1 52.4 11.6	21.5 15.0 20.6 21.4 15.9	1.6 1.4 1.7 2.8 1.6	147.9 117.4 157.7 116.8 101.5	.182 .158 .170 .231 .192	.180 .276 .205 .200 .476	.521 .461 .465 .426 .268	.005 .012 .012 .013 .010	.008 .008 .010 .015	
Ohio	18.5 12.7 7.7 17.3 10.0	24.5 16.7 19.8 22.0 18.4	1.6 1.7 1.4 1.8 2.0	166.1 123.2 131.4 154.9 163.9	.220 .171 .194 .181 .169	.200 .336 .247 .208 .159	.534 .399 .410 .457 .346	.014 .010 .011 .011 .009	.012 .016 .013 .010 .008	
South Carolina South Dakota Tennessee Texas Utah	58.5 8.3 26.2 28.1 12.3	19.9 13.4 16.2 20.6 18.1	2.0 1.7 1.7 1.9 1.6	78.5 80.6 108.9 123.4 141.6	.282 .240 .179 .209 .157	.225 .334 .248 .283 .261	.367 .215 .460 .385 .510	.006 (D) .006 .011	.007 (D) .011 .014 .012	
Vermont	31.8 29.0 11.3 21.9 18.6 4.4	16.6 17.0 23.4 20.2 22.2 18.4	1.9 1.8 1.5 1.6 1.7 1.7	118.7 113.5 172.9 87.4 126.7 122.6	.174 .182 .178 .282 .230 .205	.270 .204 .233 .277 .236 *.283	.431 .610 .502 .250 .444 .285	.012 .012 .011 .012 .009 .022	.007 .020 .008 .015 .005	

APPENDIX A. Expianation of Terms

Construction—Is composed of three broad categories: (1) new construction, (2) additions and alterations, and (3) maintenance and repair. "New construction" includes the complete, original erection of structures and essential service facilities and the initial installation of integral equipment such as elevators and escalators. "Additions and alterations" includes construction activity making structural changes to existing facilities. "Maintenance and repair" includes the restoration of existing buildings or other structures or their service facilities, including the replacement of integral parts. Repainting, repapering, reroofing, etc., are also included.

Construction includes:

- special trade contracting such as electrical work, painting, and carpentering on mobile structures (trailers, mobile homes, and ships).
- support activities by construction contractors on mineral properties, except the following: sinking mine shafts; tunneling and shoring mines; erection, repairing and dismantling of drilling rigs; and building well foundations.
- the physical development of land for purposes other than agriculture.
- demolition of existing structures.

Construction does not include:

- · shipbuilding.
- manufacturing of other mobile structures.

Number of establishments in business during year—Includes all establishments that were in business at any time during the year. It covers all full-year and part-year operations. Construction establishments which were inactive or idle for the entire year were not included.

Number of establishments in business at end of year—Includes all full-year or part-year establishments that were in business at the end of 1982.

Proprietors and working partners—These data were not collected on the census report forms. The data shown are based on crediting each sole proprietorship establishment with one active proprietor and each partnership establishment with two working partners. The partnership factor was based on information received during a large-scale test conducted in prior years.

All employees—Comprised all full-time and part-time employees on the payrolls of construction establishments who worked or received pay for any part of the pay period including the 12th of March, May, August, and November. Included are all persons on paid-sick leave, paid holidays, and paid vacations during these pay periods. Officers of corporations are included, but proprietors and partners of unincorporated firms are excluded.

Total employment is calculated for each establishment and is derived by summing the construction workers data reported for March, May, August, and November, dividing by 4 and adding to it the number of other employees reported for March.

This approach was designed to simplify the questionnaire format and the reporting requirements of respondents. The industry average of these four selected pay periods approximates very closely the average employment for the year that would be obtained by using pay periods in all 12 months for almost all of the construction industries.

Construction workers—Includes all workers up through the working supervisor level directly engaged in construction operations, such as painters, carpenters, plumbers, and electricians. Included are journeymen, mechanics, apprentices, laborers, truck drivers and helpers, equipment operators, and on-site record keepers and security guards. Supervisory employees above the working supervisor level are excluded from this category but are included in the "other employees" category.

Other employees—Includes employees in executive, purchasing, accounting, personnel, professional, technical activities, and routine office functions. Also included are supervisory employees above the working supervisor level.

Construction worker hours—Includes the total number of hours worked by construction workers. Construction worker hours were collected for each of the four quarters of 1982 and are published in the detailed statistics tables.

Payroll—Includes the gross earnings paid in the calendar year 1982 to all employees on the payroll of construction establishments. It includes all forms of compensation, such as salaries, wages, commissions, dismissal pay, bonuses, vacation and sick-leave pay, prior to such deductions as employees' Social Security contributions, withholding taxes, group insurance, union dues, and savings bonds. The total includes salaries of officers of these establishments, if a corporation, but excludes payments to the proprietor or partners, if an unincorporated concern.

Payroll data were collected and tabulated for the employment categories described above and separately for the first quarter of 1982.

Payroll data for auxiliary establishments of multiestablishment companies are not included in these totals. Selected data for these types of establishments are found in the industry summary report and the 1982 Enterprise Statistics reports.

Employer costs for fringe benefits—Represents expenditures made by the employer during 1982 for legally required and voluntary fringe benefit programs for employees. These include employers' Social Security contributions, unemployment compensation, workers' compensation, State temporary disability payments, union negotiated benefits, life insurance premiums, pension plans, insurance premiums on hospital and medical plans, and welfare plans.

All business receipts—Includes all receipts from general contracting, special trade contracting or subcontracting, and land development and improvement work. It also includes all receipts from the sale of land (not recorded as fixed assets of the reporting establishments) and buildings built for sale. All other receipts from the reporting establishment's other business operations (rental of equipment to others, wholesale or retail sales, etc.) are also included.

Money obtained during the year in the form of construction loans is not treated as receipts, nor is money realized from the sale or other disposition of the establishment's fixed assets.

Also excluded are receipts from operations in foreign countries and nonoperating income such as interest and dividends.

All business receipts are broken down in the following detail:

Total construction receipts—Includes all receipts during 1982 for construction work performed by general contractors, special trades contractors or subcontractors, and for land development and improvement work. Included are receipts for maintenance and repair construction work, as well as for new construction and additions and alterations. Also included is the value of any construction work done by the reporting establishments for themselves.

Builders were instructed to include in this item their 1982 receipts from the sale of buildings and other structures built for sale, excluding from these receipts the value of the land (see ''land receipts'' below) but including the value of any improvements an establishment made to the land. Builders who traded a new home or other building for an existing one were to include the estimated value of the trade-in.

Also included in construction receipts were fees received as sponsors of joint ventures and fees received as agents for owners (for construction work).

Excluded were receipts for separately definable architectural and engineering work done by the reporting establishment for others and receipts from the rental of equipment to others (see "other business receipts" below).

Establishments engaged in the sale and installation of such construction components as plumbing, heating, and central air conditioning supplies and equipment; lumber and building materials; paint, glass, and wallpaper; and electrical and wiring supplies for construction purposes were instructed to include as construction receipts both the receipts for the installation and the receipts for the value (selling price) of the items installed. (Receipts for the selling price of items sold but not installed were to be included in "other business receipts.")

Receipts for work subcontracted in from others—Covers receipts during 1982 for work done by reporting establishments for other construction contractors or builders. Establishments were asked to report the approximate percent of total construction receipts accounted for by such work, and the percentages reported were applied to the reported construction receipts to develop a value for this item.

Land receipts—Includes receipts from the sale of land, whether held for sale or sold in connection with the sale of houses and other structures. It excludes the value of any improvements made to the land prior to the sale. (That value was to be included in construction receipts.)

Other business receipts—Includes business receipts not reported as construction receipts or land receipts. The item includes business receipts from retail and wholesale trade, rental of equipment, manufacturing, transportation, legal service, insurance, finance, rental of property and other real estate operations, and other nonconstruction activities. Receipts for separately definable architectural and engineering work for others are also included here.

Net construction receipts — Derived for each establishment by subtracting the payments made for construction work subcontracted to others from the total construction receipts. (For a further explanation, see "Duplication of Receipts" section in the Introduction.)

Value added—Derived for each establishment, value added is equal to all business receipts, less payments for construction work subcontracted to others and payments for materials, components, supplies, and fuels. For SIC 6552 and SIC 1531, for which land receipts are significant, value added is modified to be equal to all business receipts less land receipts; payments for construction work subcontracted to others; and payments for materials, components, supplies, and fuels. (For a further explanation, see "Duplication of Receipts" section in the Introduction.)

Selected payments—Represents the total of payments for materials, components, and supplies; payments for construction work subcontracted to others; and payments for selected power, fuels, and lubricants. Capital expenditures and rental payments for machinery, equipment, and structures are shown elsewhere.

Payments for materials, components, and supplies include:

- total payments made by the reporting establishments during 1982 for the purchase of all materials, components, and supplies, except fuels, used for construction. (Supplies include expendable tools charged to current accounts.)
- freight and other direct charges incurred by the reporting establishment in acquiring the materials, components, and supplies are also included, as are the value of materials, components, and supplies obtained from other establishments of the respondent's company. Payments represent the amount paid after discounts.
- payments for materials, components, and supplies used by the reporting establishments in the construction of new plants or equipment for themselves, which are chargeable to their fixed assets accounts, are included in this item as are payments for materials bought and resold to others.
- payments made for direct purchases of materials, components, and supplies even though the purchases were subsequently provided to subcontractors for their use.

Payments for materials, components, and supplies include only payments for physical goods and represent the amount paid after discounts.

Excluded from this item are:

- services such as advertising, telephone, telegraph and cable, insurance, developmental and research services of engineering, management, marketing, and other professional consultants, unless their costs are included in the prices paid for materials.
- overhead items such as depreciation charges against plant and equipment, rent and rental allowances, interest payments, royalties, patent fees, payments for land, rental of construction machinery or equipment, and construction work let out to other construction contractors.
- materials furnished to contractors by the owners of projects.

Payments for construction work subcontracted to others include:

- all payments made during 1982 for construction work subcontracted out to other construction contractors.
 General contractors were instructed to include payments to subcontractors. Builders were instructed to include payments made to general contractors and also payments made directly to subcontractors.
- special trade contractors were instructed to include payments made to other subcontractors. The payments made by the reporting establishment for its purchases of materials, components, and supplies are not included here, even if they were provided to a subcontractor for his use. Such purchases are reported under a separate category, "payments for materials, components, and supplies." However, if payments to subcontractors covered materials purchased directly by the subcontractors, then the total of such payments (including material charges) should have been reported in this item.

Excluded from this item are:

 payments made for the rental of construction machinery or equipment.

Payments for selected power, fuels, and lubricants include:

- payments made for fuels, lubricants, and electric energy purchased during the year from other companies, or received from other establishments of the parent company.
- payments made for natural and manufactured gas, fuel oil, coal and coke products, etc.

Dollar amounts include freight and other direct charges.

Storage capacity for fuels—Data for storage capacity for fuels were collected from heavy construction contractors, other than building construction contractors. Data are published in the detailed statistics tables for the heavy construction industries, i.e., SIC 1611, SIC 1622, SIC 1623, and SIC 1629.

Rental payments for machinery, equipment, and structures—Includes all payments made during 1982 for renting or leasing construction machinery and equipment, transportation equipment, production equipment, office equipment, furniture and fixtures, scaffolding, office space, and buildings. It excludes payments for the rental of land. It also excludes payments made under agreements which, in effect, are conditional sales contracts and which, as a result, are capitalized. Such payments are included in "capital expenditures." It also excludes payments made under agreements which, in effect, are true subcontract construction arrangements; such payments are included in payments for "construction work subcontracted to others."

Selected purchased services — Includes all payments made during 1982 for communication services purchased from other companies or from other establishments of the parent company. It also includes the cost of all repairs made to structures and equipment by outside firms, or from other establishments of the parent companies. It includes only the cost of that repair necessary to maintain property and equipment. It excludes the cost of improvements that increases the value of property, or the cost of adapting it for another use.

Fixed assets and depreciation—Refers to the value of all fixed tangible assets such as buildings and other structures (offices, shops, etc.); stationary machinery (generators, shop equipment, etc.); mobile machinery (tractors, trucks, etc.); and other equipment (office furniture and fixtures, etc.). Not included are such items as current assets, depletable assets, intangible assets, and nondepreciable assets.

Data on fixed assets and depreciation were collected separately for: (1) structures, additions, and related facilities; (2) machinery and equipment; and (3) the total of both.

Respondents were asked to report the gross book valueacquisition cost (original cost or other basis) at the beginning and at the end of 1982. They were also asked to report capitalized expenditures, depreciation charges, and the gross value of assets sold, retired, scrapped, destroyed, etc., during 1982.

Capital expenditures—Refers to all costs actually incurred during 1982 which were or would be chargeable to the fixed assets accounts of the reporting establishments and which were of the type for which depreciation accounts are ordinarily maintained. These expenditures cover the acquisition, the construction, and the major alteration of the reporting establishment's own buildings and other structures, whether purchased, constructed under contract, or constructed by the reporting establishment's own forces; and the acquisition of machinery and equipment. Included are payments made under agreements which, in effect, are conditional sales contracts and which, as a result, are capitalized.

Respondents were instructed not to include any expenditures actually made prior to, or after 1982. For example, if they began construction of a building for an establishment's own use before 1982 and did not complete it until after 1982, they were to report only those costs actually incurred during 1982.

If capital expenditures were not recorded directly at the establishment level but handled centrally at the company or division level, respondents were requested to report appropriate estimates for the individual establishments.

- New structures and related facilities—Includes the
 total expenditures during 1982 for new buildings and
 structures, major additions and alterations to
 buildings and structures, and other facilities for the
 reporting establishment's use (such as roads, docks,
 tracks, parking lots, and fences). It excludes expenditures for land.
- New machinery and equipment—Includes expenditures for new machinery and new equipment. This item also includes capitalized repairs and improvements to used machinery and equipment.
- New automobiles and trucks intended primarily for highway use—Includes expenditures for new automobiles and trucks and capitalized repairs and improvements to used automobiles and trucks.
- Used structures and related facilities—Covers expenditures for used structures and related facilities acquired from others.
- Used machinery and equipment—Includes expenditures for used machinery and equipment acquired from others, including automobiles and trucks.
 Capitalized repairs and improvements to such equipment are reported as new machinery and equipment.

Value of inventories—Includes all of the materials and supplies that are owned and located within the United States. Excludes materials which are owned by others, but held by the reporting establishment.

Inventories of multiestablishment companies were instructed to be reported by the establishment that is responsible for the inventories even if these inventories were held at a separate location.

Establishments building structures on their own land for sale (operative builders) were instructed to include the value of materials on hand at the end of the year but not to include the structures not yet sold or under construction.

Land subdividers and developers were instructed to include the value of materials on hand at the end of the year, but not include land not yet sold or under construction.

Ownership of construction projects—This item shows the distribution of construction receipts by ownership of the project—Government owned or privately owned. This classification relates to the ownership of the projects or work undertaken and not to the financing. Government owned projects cover those owned by the Federal, Commonwealth, or local governments including public authorities and special districts.

Types of construction—This item provides data by the types of buildings, structures, or other facilities being constructed or worked on by construction establishments in 1982. Respondents were instructed that each building, structure, or other facility should be classified in terms of its function. For example, a restaurant building was to be classified in the restaurant category whether it was designed as a commercial restaurant building or an auxiliary unit of an educational institution. However, complex projects consisting of two or more types of buildings, structures, or other facilities are difficult to classify because sufficient information is seldom available. Therefore, respondents were told to classify complex projects by the major function of the total complex.

In addition, heavy construction contractors and special trade contractors were requested to report the percentage of construction receipts derived from new construction work, including additions and alterations, and from maintenance and repair work for each of these types. General building contractors were requested to report the percentage of construction receipts derived from new construction work, from additions and alterations, and from maintenance and repair work for each of these types. See the definition of "Construction" for the meanings of new construction, additions and alterations, and maintenance and repair.

Building construction:

- Single-family houses, detached—Includes all residential buildings constructed for one family use.
- Single-family houses, attached (includes townhouses) — Includes all residential buildings with two or more living quarters side by side, completely independent of one another, and separated by an unbroken party or lot line wall from ground to roof.
- Apartment buildings with two or more apartments— Includes high-rise, low-rise, or any structures other than containing two or more housing units.
- Other residential buildings—Includes hotels, motels, dormitories, and other nonhousekeeping residential structures.
- Bank buildings and other financial institutions— Includes all buildings which are used primarily to house banks or other financial institutions.
- Warehouses—Includes commercial warehouses, cold storage plants, grain elevators, miniwarehouses, and other storage buildings.
- Farm buildings, nonresidential—Includes nonresidential farm buildings such as barns, poultry houses, implement sheds, and farm silos.
- Industrial buildings—Includes all industrial buildings and plants which are used to house production and assembly activities. Note that heavy industrial facilities such as blast furnaces, petroleum refineries, chemical complexes, etc., are NOT included in this category, but are shown under nonbuilding construction.
- Office buildings—Includes all buildings which are used primarily for office space or for government administrative offices.
- Other commercial buildings such as stores, restaurants, and automobile service stations— Includes all buildings which are intended for use primarily in the wholesale, retail, and service trades.
 For example, complete shopping centers, department stores, drug stores, restaurants, public garages, and auto service stations.
- Religious buildings—Includes all buildings which are intended for religious services or functions, such as churches, synagogues, convents, monasteries, and seminaries.

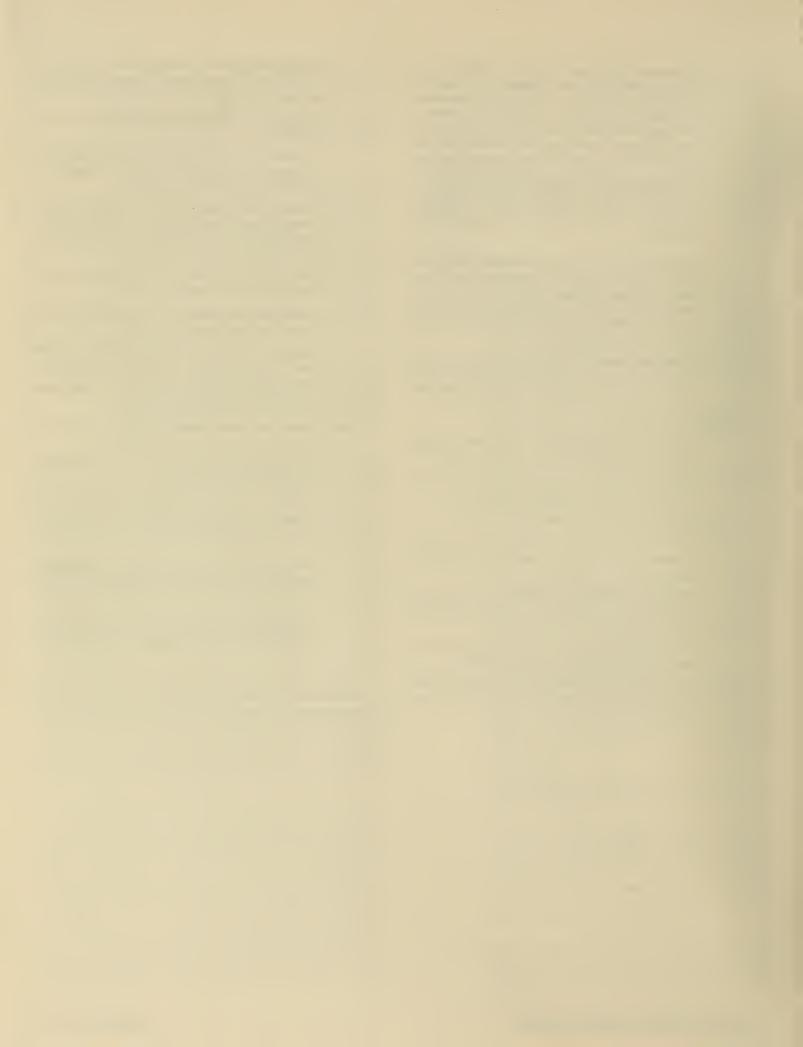
- Educational buildings Includes all buildings which
 are used directly in administrative and instructional
 activities, such as colleges, universities, elementary
 and secondary schools, correspondence, commercial, and trade schools. Libraries, museums and art
 galleries, as well as laboratories which are not a part
 of a manufacturing establishment, are also included.
- Hospitals and institutional buildings—Includes all buildings which are intended to provide hospital and institutional care, such as clinics, infirmaries, sanitariums, nursing homes, homes for the aged, and orphanages.
- Amusement, social, and recreational buildings— Includes buildings which are used primarily for entertainment, social, and recreational activities, such as sports arenas, theaters, music halls, golf and country club buildings, skating rinks, bowling alleys, and indoor swimming pools.
- Other nonresidential buildings—Includes buildings which are not classified elsewhere, such as fire stations, bus and air passenger terminals, hangars, etc.

Nonbuilding construction:

- Outdoor swimming pools—Includes wading pools and reflecting pools.
- Elevated highways—Includes roads, highways, and causeways built on structural supports.
- Bridges—Includes viaducts, trestles, and overpasses.
- Tunnels—Includes highway, pedestrian, and railway tunnels, etc.
- Railroad construction—Includes the construction of railroad beds, tracks, freight yards, and signal towers.
- Subway construction—Includes urban mass transit subway systems above or below ground.
- Dam and reservoir construction—Includes hydroelectric, water supply, and flood control dams and reservoirs.

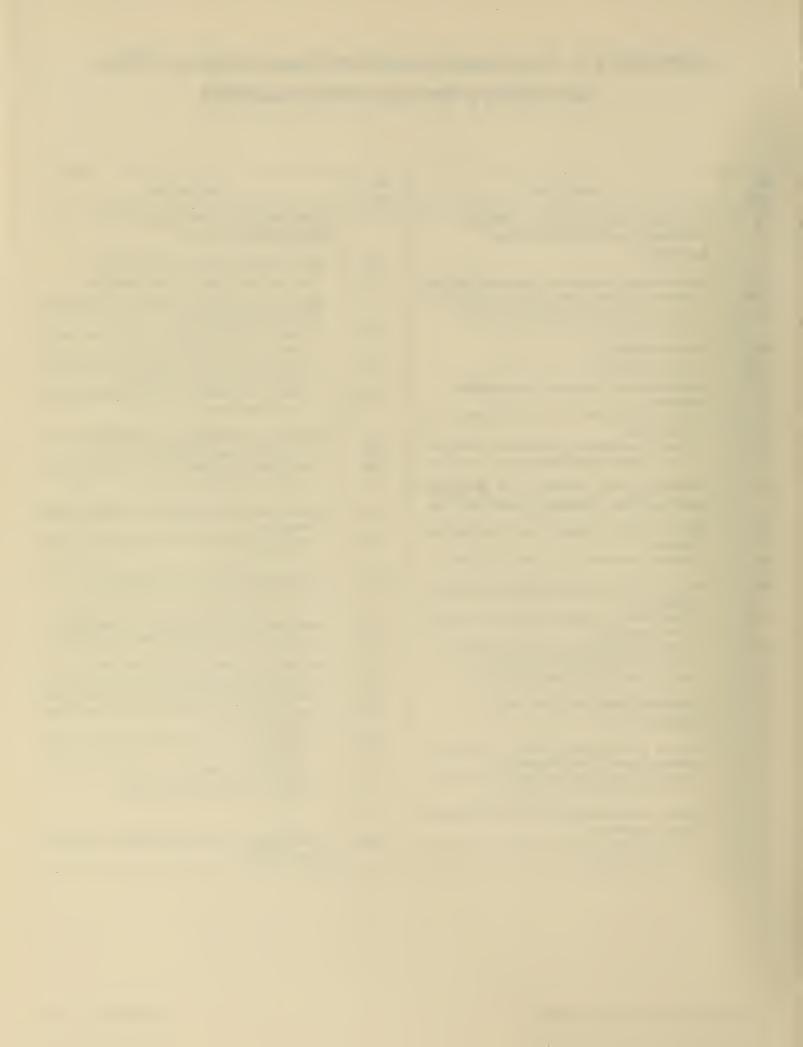
- Marine construction—Includes dredging, underwater rock removal, breakwaters, navigational channels, jetties, and locks.
- Harbor and port facilities—Includes docks, piers, and wharves.
- Conservation and development construction— Includes land reclamation, irrigation projects, drainage canals, dikes, and levees.
- Power and communication transmission lines, towers, and related facilities—Includes telephone and telegraph lines, television and radio towers, electric light and power facilities.
- Power plants, except nuclear Includes electric and steam generating plants.
- Power plants, nuclear—Includes atomic energy plants and nuclear reactors.
- Sewers, sewerlines, and related facilities—Includes sanitary and storm sewers and related facilities.
- Sewage treatment plants—Includes sewage treatment and waste disposal plants.
- Water mains and related facilities—Includes water supply systems and related facilities.
- Water treatment plants—Includes water filtration and water softening plants.
- Pipeline construction other than sewer or waterlines—Includes pipelines for the transmission of gas, petroleum products, and liquefied gases.
- Blast furnaces, petroleum refineries, chemical complexes, etc.—Includes coke ovens, and mining appurtenances such as tipples and washeries.
- Other nonbuilding construction—Includes all types of nonbuilding construction, not included elsewhere.

Location of construction work—This item includes data for each State in which respondents engaged in construction work and the extent (percent of construction receipts) of that work.



APPENDIX B. Standard Industrial Classification Titles for Industry Groups and Industries

SIC	Industry titles	SIC code	Industry titles
15	BUILDING CONSTRUCTION—GENERAL	17	CONSTRUCTION – SPECIAL TRADE
13	CONTRACTORS AND OPERATIVE	1 /	CONTRACTION—SPECIAL TRADE
	BUILDERS		CONTRACTORS—Con.
	BUILDENS	173	Electrical Work Special Trade Contractors
152	General Building Contractors — Residential Buildings	1731	Electrical Work Special Trade Contractors
1521	General Contractors—Single-Family Houses	174	Maconey Stonowork Tile Setting and Blockerin
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	Buildings	1743	Terrazzo, Tile, Marble, and Mosaic Work Specia
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1542	General Contractors - Nonresidential Buildings,	1751	Carpentering Special Trade Contractors
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	tion Contractors	1781	Water Well Drilling Special Trade Contractors
1623	Water, Sewer, Pipe Line, Communication and	.,	Trace train briming operation trace contractors
1629	Power Line Construction Contractors	179	Miscellaneous Special Trade Contractors
1029	Heavy Construction Contractors, N.E.C.	1791	Structural Steel Erection Special Trade Contractors
17	CONSTRUCTION—SPECIAL TRADE	1793	Glass and Glazing Work Special Trade Contractors
	CONTRACTORS	1794	Excavating and Foundation Work Special Trade Contractors
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1711	Plumbing, Heating (Except Electric), and Air Conditioning Special Trade Contractors		Special Trade Contractors, N.E.C.
		1799	Special Trade Contractors, N.E.C.
172	Painting, Paper Hanging, and Decorating Special		
1721	Trade Contractors	6552	SUBDIVIDERS AND DEVELOPERS, EXCEPT
1/21	Painting, Paper Hanging, and Decorating Special	0002	CEMETERIES



APPENDIX C. Geographic Divisions and States

NEW ENGLAND STATES

Connecticut
Maine
Massachusetts
New Hampshire
Rhode Island
Vermont

MIDDLE ATLANTIC STATES

New Jersey New York Pennsylvania

EAST NORTH CENTRAL STATES

Illinois Indiana Michigan Ohio Wisconsin

WEST NORTH CENTRAL STATES

Iowa Kansas Minnesota Missouri Nebraska North Dakota South Dakota

SOUTH ATLANTIC STATES

Delaware District of Columbia Florida Georgia Maryland

SOUTH ATLANTIC STATES-Con.

North Carolina South Carolina Virginia West Virginia

EAST SOUTH CENTRAL STATES

Alabama Kentucky Mississippi Tennessee

WEST SOUTH CENTRAL STATES

Arkansas Louisiana Oklahoma Texas

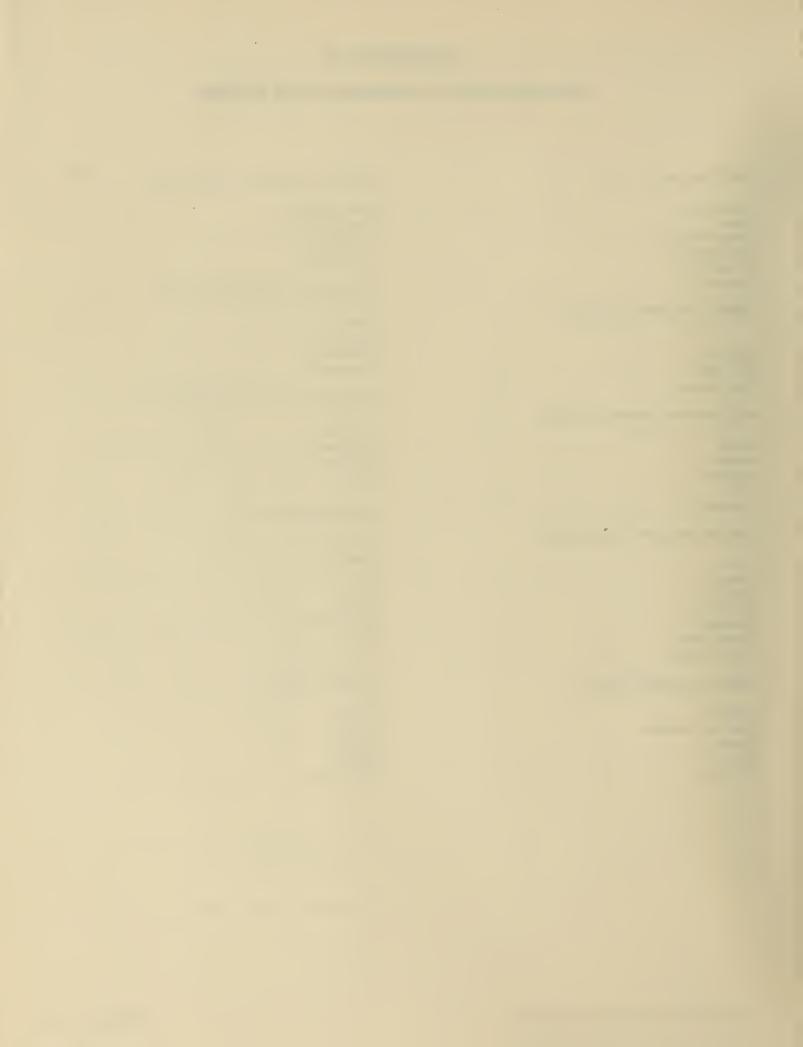
MOUNTAIN STATES

Arizona Colorado Idaho Montana Nevada New Mexico Utah Wyoming

PACIFIC STATES

Alaska California Hawaii Oregon Washington

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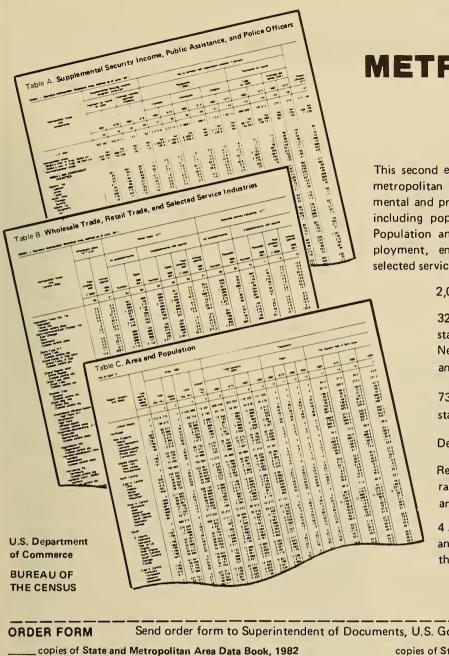


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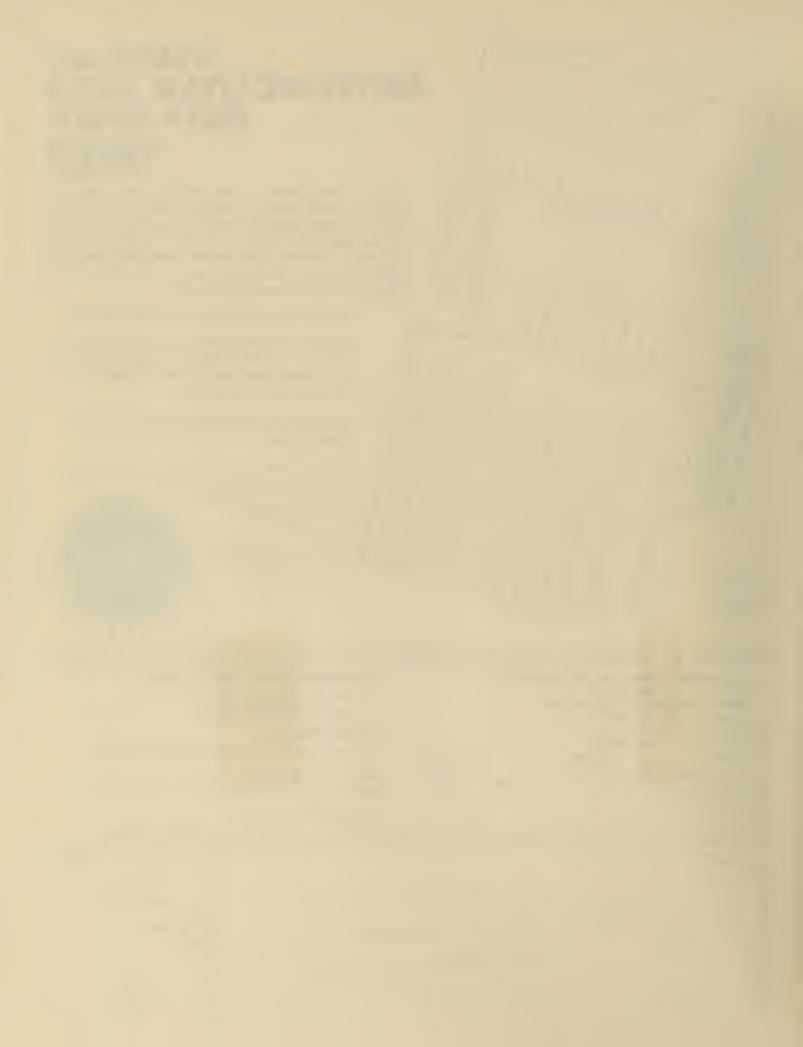
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PUBLICATION PROGRAM

1982 CENSUS OF CONSTRUCTION INDUSTRIES

Publications of the 1982 Census of Construction Industries, containing data on construction establishments in the United States, are described below. Publications order forms for the specific reports may be obtained from any Department of Commerce district office or from Data User Services Division, Customer Services (Publications), Bureau of the Census, Washington, D.C. 20233.

Preliminary Reports

Preliminary data from the 1982 census have been issued in 27 industry reports and 1 summary report. These reports are superseded by more detailed final reports.

Final Reports

Final detailed statistics are issued in separate paperbound reports.

Industry series - 28 reports (CC-82-I-1 to -28)

Industry series — 27 reports (CC82-I-1 to -27). These reports present data for establishments with payroll and are published for each of the 27 industries included in the census. Each industry report presents 1982 data by State and for the United States on number of construction establishments; receipts; employment; hours worked; payrolls; payments to subcontractors; payments for materials, components, and supplies; payments for power and fuels; payments for selected purchased services; payments for the rental of machinery, equipment, and structures; value added; capital expenditures during the year; and depreciable assets. Limited data for 1977, 1972, and 1967 are also shown. In addition, more detailed data are shown at the U.S. level on construction receipts by type of structure (single-family houses, streets, roads, etc.). Selected data also are provided for establishments classified by their employment size and receipts size.

U.S. Summary – 1 report (CC82-I-28). This report summarizes the data for establishments with payroll presented in the 27 individual industry reports and presents limited data for establishments with no payroll.

Geographic area series - 10 reports (CC82-A-1 to -10)

Division reports (CC82-A-1 to -9). These reports are published for _States grouped according to the nine census geographic divisions. Much of the geographic area series data are the same as presented in the

industry series, except here they are organized by State rather than by industry. Similar data also are presented for selected SMSA's. Data are provided for establishments classified by their employment size and receipts size. Data for establishments with no payroll as well as comparative 1977, 1972, and 1967 figures, on a limited basis, also are shown.

U.S. Summary by State (CC82-A-10). This report summarizes the data, as presented in the nine individual geographic division reports, for establishments with and without payroll.

Special series - 1 report (CC82-SP-1)

Legal form of organization and type of operation (CC82-SP-1)—This report presents limited data (number of establishments, number of proprietors and working partners, total employment, and total receipts) for construction establishments without payroll, for construction establishments with payroll, and for the aggregate, classified by industry and by legal form of organization. It also contains selected statistics (number of establishments, employment, payrolls, receipts, payments to subcontractors, net construction receipts, and value added) for construction establishments with payroll, classified by industry and by type of operation (multiunit or single-unit) and by legal form of organization.

Final Report Volume

Final paperbound reports subsequently are assembled and reissued in two clothbound volumes.

Microfiche

All published data also are available on microfiche.

OTHER ECONOMIC CENSUSES REPORTS

Data on retail trade, wholesale trade, service industries, manufactures, enterprise statistics, minority-owned businesses, women-owned businesses, and transportation also are issued as part of the 1982 Economic Censuses. A separate series of reports covers the censuses of outlying areas—Puerto Rico, Virgin Islands of the United States, Guam, and the Northern Mariana Islands. All published reports and microfiche are sold by the Superintendent of Documents, U.S. Government Printing Office. Appropriate announcements and order forms describing these products are available free of charge from Data User Services Division, Customer Services (Publications), Bureau of the Census, Washington, D.C. 20233.

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BUREAU OF THE CENSUS LIBRARY The publications from the 1982 Economic and Agriculture Censuses are dedicated to the memory of Shirley Kallek, Associate Director for Economic Fields. During her career at the Bureau of the Census (1955 to 1983), she continually directed efforts to improve the timeliness and accuracy of economic statistics.

1982

Census of Construction Industries

CC82-I-4 (Revised)

INDUSTRY SERIES

General Contractors— Industrial Buildings and Warehouses

Industry 1541

Issued July 1985



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> CONSTRUCTION DIVISION Leonora M. Gross, Chief

ACKNOWLEDGMENTS-Many persons participated in the various activities of the 1982 Census of Construction Industries. Primary direction of the program was performed by Shirley Kallek, Associate Director for Economic Fields (until May 1983), Charles A. Waite, her successor, and Michael G. Farrell, Assistant Director for Economic and Agriculture Censuses.

This report was prepared in the Construction Statistics Division under the general direction of Leonora M. Gross, Chief. Alan I. Blum, Assistant Division Chief for Industry Surveys, was responsible for the overall management of the census of construction industries. He guided the planning and implementation of the project and coordinated activities with other divisions.

A. William Visnansky supervised the preparation of this report. Barbara J. Hadden, Edward R. Glover, Otto G. Ricci, Marie Rustin-Sanhueza, and Shirley M. Baker made important contributions in such areas as developing specifications, procedures, and resolving problems.

The computer processing system was developed and coordinated under the direction of Barbara M. Walter. Richard W. Swartz made significant contributions to the planning and development of the computer programs, and Herbert S. Isham was responsible for the implementation of those programs. The computer programs were also developed and written by John Sibley, Clifford Jordan, Linda M. Mersch, Adele Cerrelli, and Dan G. Sansbury. Mary D. Brady was responsible for most of the data preparation specifications and procedures. Matthew R. Golas was responsible for the coordination with the Computer Services Division. Johnnye Pringle was responsible for production control of the computer processing. Under the direction of Jesse Pollock, Edward K. Ricketts and Dennis K. Duke developed the sampling plans, some computer processing specifications, and quality control procedures.

Systems and procedures for mailout, receipt, correspondence, data input, industry classification, other clerical processing, administrative record processing, and quality control, along with the associated electronic computer programs, were developed in the Economic Surveys Division, W. Joel Richardson, Chief.

Planning, design, review, and composition of report forms were performed in the Administrative Services Division, Robert L. Kirkland, Chief.

Publication planning, design, editorial review, composition, and printing procurement were performed in the Publications Services Division, Raymond J. Koski, Chief.

Geographic coding procedures and associated computer programs were developed in the Geography Division, Robert W. Marx, Chief.

Mailout preparation and receipt operations, clerical and analytical review activities, data keying, and geocoding review were performed in the Data Preparation Division, Don L. Adams, Chief.

Computer processing was performed in the Computer Services Division, C. Thomas DiNenna, Chief (until February 1984), and John E. Halterman, his successor.

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ECONOMIC CENSUSES OVER TIME

The early beginnings of America's industrial output were first measured in the United States in the 1810 Decennial Census and again in 1820, when questions on manufacturing were included with those for population. Beginning with the 1840 Decennial Census, there were enumerations of manufactures and mineral industries at 10-year intervals up to and including the year 1900 for manufactures and 1940 for mineral industries. The latter census was taken again for 1954, 1958, 1963, and 1967.

Because of the increasing dominance of manufacturing in the early 20th century, Congress directed that quinquennial censuses of manufactures be taken beginning in 1905. However, from 1919 through 1939, these censuses were conducted every 2 years. The need for war-related current surveys in the early 1940's postponed the next census of manufactures until 1948 (for 1947). That census was again taken for 1954, 1958, 1963, and 1967.

Retail and wholesale trade data were first collected in 1930. and in 1933 information on selected service industries was added to the data-collection operation. These business censuses, as they were called, were again taken for 1935, 1939 (as part of the 1940 decennial program), 1948, 1954, 1958, 1963, and 1967.

Information on construction industries was first obtained in 1930 and again for 1935 and 1939. Data for the full spectrum of construction industries were not gathered again until 1968 (for 1967).

The need for transportation data to supplement information available from existing governmental or private sources was recognized by Congress in the late 1950's and early 1960's. The census of transportation (consisting of several surveys) was first taken for 1963 and again for 1967.

Since 1967, all of the above censuses have been taken quinquennially as part of the Census Bureau's economic census program. (For the 1977 censuses, the coverage of the service

industries was broadened from "selected services" to all services, except religious organizations and private households. A total of 41 additional four-digit standard industrial classifications¹ (SIC's) in 7 SIC major groups was added to the scope of the census. While most of the industries included for the first time for 1977 were covered again for 1982, some were not, i.e., hospitals; elementary and secondary schools; colleges, universities, and professional schools; junior colleges and technical institutes; labor unions and similar labor organizations; and political organizations.)

The first manufacturing census for an outlying area was conducted in Puerto Rico for the year 1909. Thereafter, with the exception of 1929, a census was taken at 10-year intervals through 1949. The first censuses of retail trade, wholesale trade, and selected service industries in Puerto Rico were conducted for 1939. These censuses also were taken for the years 1949, 1954, 1958, 1963, and 1967. A census of construction industries was first introduced in Puerto Rico for 1967. These censuses of Puerto Rico have been taken since then for the years 1972, 1977, and 1982.

Censuses of manufactures, retail trade, wholesale trade, and selected service industries were conducted in Guam and the Virgin Islands of the United States for 1958, 1963, 1967, 1972. 1977, and 1982. Censuses of mineral industries were taken in the Virgin Islands of the United States for the years 1958, 1963, and 1967 but not since that time. A census of construction industries was also undertaken in these areas for 1972, 1977, and 1982.

Retail trade, wholesale trade, selected service industries, manufacturing, and construction industries were canvassed for the first time in the Northern Mariana Islands in 1983 (for 1982).

For 1982, the economic censuses and agriculture censuses were conducted concurrently.

USES OF THE ECONOMIC CENSUSES

The economic censuses are the major source for facts about the structure and functioning of the Nation's economy and provide essential information for government, business, industry, and the general public. They provide an important part of the framework for such composite measures as the gross national product, input-output measures, indexes of industrial production, and indexes measuring productivity and price levels. Information from the censuses is used to establish sampling frames and as benchmarks for current surveys of business activity, which are essential for measuring short-term economic conditions.

^{&#}x27;Standard Industrial Classification Manual: 1972. For sale by Superintendent of Documents, U.S. Government Printing Office, Washington, D.C. 20402. Stock No.041-001-00066-6. 1977 Supplement. Stock No. 003-005-00176-0.

State and local governments use census data to assess business activities within their jurisdictions. The private sector uses the data to forecast general economic conditions; analyze sales performance; lay out sales territories; allocate funds for advertising; decide on locations for new plants, warehouses, or stores; and measure potential markets in terms of size, geographic areas, kinds of business, and kinds of products made or sold.

Following every census, thousands of businesses and other users purchase reports. Likewise, census facts are widely disseminated by trade associations, business journals, and newspapers. Volumes containing census statistics are available in most major public and college libraries. All 1982 data are available on microfiche from the U.S. Government Printing Office and most data on computer tape from the Census Bureau. Finally, the more than 50 State Data Centers also are suppliers of economic census statistics.

AUTHORITY AND SCOPE OF THE ECONOMIC **CENSUSES**

The economic censuses are required by law under title 13 of the United States Code, sections 131, 191, and 224, which directs that they be taken at 5-year intervals for the years ending in 2 and 7. The 1982 Economic Censuses covered manufacturing, mining, construction industries, retail trade, wholesale trade, service industries, and selected transportation activities. Special programs also cover minority-owned and women-owned businesses. The next economic censuses are scheduled to be taken in 1988 for the year 1987.

METHOD OF ACCOUNTING AND TIME COVERED

For the census report, respondents could use any system of accounting by which they maintained their books. Therefore, reports could be based on cash, accrual, or completion of contract methods of accounting.

A report was supposed to cover the calendar year 1982. If that involved considerable costs, fiscal year reporting was permitted if it did not produce great differences. However, all payroll and employment figures had to be reported for the calendar year.

CENSUS OF CONSTRUCTION INDUSTRIES-SCOPE AND CLASSIFICATION

The 1982 Census of Construction Industries covers all employer establishments (establishments with payroll) primarily engaged in contract construction, construction on their own account for sale, or in subdividing real property into lots as defined in the 1972 Standard Industrial Classification (SIC) Manual. This industrial classification system has been developed by experts on classification in government and private industry under the guidance of the Office of Management and Budget and is in general use among government agencies and among organizations outside the government.

Contract construction—The SIC manual defines construction in three broad types of activity: (1) building construction by general contractors, (2) other construction by general contractors, and (3) construction by special trade contractors.

- 1. Building construction by general contractors-General building contractors are primarily engaged in the construction of dwellings, office buildings, stores, farm buildings, and other projects of a similar character.
- 2. Other construction by general contractors Often referred to as heavy construction contractors, these contractors are primarily engaged in the construction of highways, streets, bridges, and tunnels; docks and piers; dams and water projects; sewage collection, treatment, and disposal facilities; storm sewer systems; air fields; and other heavy construction which involves either earth moving or the erection of structures and appurtenances, other than buildings.
- 3. Construction by special trade contractors Special trade contractors are primarily engaged in specialized construction activities such as plumbing, painting, electrical work, carpentry, etc.

General contractors in both the building and the heavy construction field usually assume responsibility for an entire construction project, but may subcontract to others those portions of the project requiring special skills or equipment. Special trade contractors may work for general contractors, for other subcontractors, or may work directly for the owner of the property.

Construction on their own account, for sale-Operative builders are primarily engaged in constructing buildings or other structures on their own account, acting as their own general contractor. These structures are generally sold when completed. Investment builders, primarily engaged in construction on their own account for rent or lease, were not included within the scope of the construction census.

Subdividers and developers, except cemeteries-The SIC manual defines subdividers and developers, except cemeteries, as establishments engaged in subdividing real property into lots, except cemetery lots, and in developing it for resale on their own account or for others.

In this system, each establishment is assigned an industry code on the basis of its major activity.

Each establishment receiving a questionnaire was requested to report the percent of total business receipts for each kind-ofbusiness activity engaged in during 1982. This information was used for the computer assignment of appropriate industry classifications. During this work, various tests were also made using other data reported on the questionnaire. The proportion of construction receipts to total business receipts was checked to verify that the establishment was primarily in construction. Also taken into consideration were the types of structures worked on during the year and the extent of work undertaken for other contractors.

Construction establishments often engage in various construction activities, but in only a few instances do the SIC industry categories take into consideration combinations of activities. An example is SIC 1711, which includes establishments primarily engaged in plumbing, heating, air conditioning, ventilation, and refrigeration work. It is necessary, however, to assign a single industry code to the establishment based on its major activity.

¹Standard Industrial Classification Manual: 1972. For sale by Superintendent of Documents, U.S. Government Printing Office, Washington, D.C. 20402. Stock No. 041-001-00066-6. 1977 Supplement. Stock No. 003-005-00176-0.

Therefore, the statistics shown for an industry reflect not only the primary activity of the establishments in the industry, but also their secondary activities.

The structure of the Standard Industrial Classification System makes it possible to classify or tabulate establishments by major group (two-digit), industry group (three-digit), or industry (four-digit) according to the degree of detail available and needed.

ESTABLISHMENT BASIS OF REPORTING

The census of construction industries is conducted on an establishment basis. A "construction establishment" is defined as a relatively permanent office or other place of business which has been established for the management of more than a single project or job and is expected to be maintained on a continuing basis. Such "establishment" activities include, but are not limited to, estimating, bidding, scheduling, purchasing, supervising, and operating the actual construction work being conducted at one or more construction sites.

Exceptions to the "relatively permanent office" rule were that: (1) in case of joint ventures, a separate establishment report was required covering the joint venture entity even though established to undertake only a single project; and (2) to the extent that separate legal entities were set up to carry out only a given project or part of a project, then a separate establishment report was also required for each legal entity.

To the extent that several companies shared or operated out of a single office or place of business, each such legal entity engaged in construction was considered a separate establishment and each was requested to file the necessary "establishment" report covering the activities it conducted in or from that common office.

Companies with more than one construction establishment were required to submit a separate report for each such establishment operated during all or any part of 1982.

Separate construction reports were not required for each project or construction site. Aggregated information was included in the report of the construction establishment responsible for the work of the construction projects and sites.

If an establishment engaged in two or more distinctly different lines of economic activity (wholesale or retail trade, service, manufacturing, construction, mining, etc.) at the same place of business, it was requested to file a separate report appropriate to each activity, provided that the activity was of substantial size and separate records were maintained or substantially accurate etimates could be prepared.

If a separate establishment report could not be prepared for each activity, then a construction report was requested covering all activities of that establishment providing that the 1982 gross receipts from construction activities exceeded the gross receipts from each of its other activities.

An establishment is not necessarily identical with a "company" or "enterprise," which may consist of one or more establishments. The census of construction industries figures represent a summary of records for individual establishments rather than for companies. The census tabulations, therefore, differ from those prepared on a company basis.

Construction businesses with no payroll during 1982 (nonemployers) were not required to file census reports. Collection and tabulation of data for these businesses are described in the section on "Sample Design." Foreign construction activities were not included in this census.

SAMPLE DESIGN, ESTIMATION PROCEDURES, AND **RELIABILITY OF ESTIMATES**

The firms included in the 1982 Census of Construction Industries were identified as part of an operation common to all 1982 Economic Censuses, Construction firms were divided into employers (firms with payroll) and nonemployers (firms without payroll). Statistical information for the employers was obtained in the census by a survey which included all medium size and large employers and a sample of the smaller ones. Census reports were not required from the nonemployers. Statistics on them were obtained from administrative records of other agencies of the Federal Government based on information supplied directly to the agencies.

Employer Firms

Developing the sampling frame for employer firms-This operation started with obtaining a list of all construction firms in the active records of the Internal Revenue Service (IRS) which were subject to payment of Federal Insurance Contributions Act taxes. The basic source for this list has been the Internal Revenue Service Business Master File, a comprehensive list of firms engaged in business activities in the United States. The file contains the name, address, and form of ownerhship of each firm and also indicates whether or not the firm is subject to the Federal Insurance Contributions Act. Each firm in this file is assigned a unique employer identification (EI) number which it uses in filing its various reports with the IRS. The Social Security Administration (SSA) maintains a similar list using the same identification numbers, which also contains information on the industrial classification of each firm. The Bureau of the Census obtained both of these lists and combined them.

Under special arrangements which safeguarded the confidentiality of the information, the Bureau also obtained administrativerecord data on payrolls and receipts and added these data to the combined list. The list, thus created from the IRS-SSA information, was a list of employer firms. However, for the 1982 Economic Censuses the basic reporting unit is the "establishment." Therefore, steps were taken to identify the individual establishments of those firms which operate more than one place of business. The information for making this determination was obtained by means of the Company Organization Survey (COS), an annual canvass of all known multiestablishment firms and large single-establishment firms. Thus, the 1982 Economic Census list for single-establishment employer firms was obtained from the IRS-SSA, but the list of establishments of multiestablishment employer companies was obtained directly from those companies in the COS.

In general, the IRS-SSA list provided sufficient industrial classification data to assign a firm to the proper economic census, but there were a number of firms for which this information was inadequate or unavailable. A special form, NC-9923, General Report, was mailed to all such firms, requesting information on the nature of the firm's activities. From the information reported, the firm was given an industrial classification code and assigned to the appropriate economic census. Since construction firms found in this way were identified as such, only after the regular census mailing had taken place, they were treated as a supplement to the basic list.

For 1982, some data will be published for Standard Consolidated Statistical Areas (SCSA's) and selected Standard Metropolitan Statistical Areas (SMSA's). Therefore, each establishment was assigned to an SMSA code or to the balance of a State. The balance of the State was considered to be a separate cell for the selection process. In States where none of the SMSA's had more than 500,000 inhabitants in the 1970 Decennial Census, all establishments were assigned to the balance of the State.

Selecting the employer sample - A construction universe of about 464,000 single establishment employer firms and 6,500 multiestablishment employers, accounting for another 13,000 construction establishments, was developed by the procedures described above. From this universe, a sample of 172,000 employer establishments was selected. This sample was generally organized by standard industrial classification (SIC) in State sequence. The sample was designed to provide publishable estimates for the most construction industries at the State and selected SMSA level. It consisted of all construction establishments in multiestabishment companies, all singleestablishment companies with the payroll equivalent of 20 employees or more, and a sample of single-establishment companies with less than 20 employees. There were three SIC's for which this standard plan was not used: SIC 1622, Bridge, Tunnel, and Elevated Highway Construction Contractors; SIC 1795, Wrecking and Demolition Work Special Trade Contractors; and SIC 1796, Installation or Erection of Building Equipment Special Trade Contractors.

The number of establishments classified in each of these three industries is very small and consequently, all single-unit establishments in these three industries were included in the sample. For sampling purposes, the number of employees was estimated from the 1981 payroll data in the administrative records, using an industry average wage per employee. The sampling was accomplished using a systematic method within each four-digit SIC. If the SIC code for an establishment was not complete, it was sampled as part of a two-digit group (e.g., 1520 was sampled as 1500, 1620 as part of 1600) except for non-classifiable cases in two-digit group 17. These were sampled as part of 1799 which is Special Trade Contractors, Not Elsewhere Classified. For the establishments with less than 20 employees, the sample was selected by sorting the establishments into State by SMSA by SIC by payroll sequences, and drawing a systematic sample of at least two establishments within each cell, with the probability of selection being proportional to the 1981 payroll. If the State-SMSA-SIC cell had two or less establishments in the frame, all establishments were selected (a 100-percent sample). A 100-percent sample was taken of the construction firms identified from the NC-9923, General Report, and of the transfers from other census trade areas. These latter cases were identified during the processing stages. These were caused either by changes of activity in the firm since the last updating of the classification file, or errors in the mailout classification. These cases were all added to the construction census, with certainty.

Estimation procedures for 1982 and 1977 data-Since all larger employer firms and some smaller ones were included in the census, sample estimation was required only for the universe of firms not selected with certainty. The published statistics are the totals of the estimates for the sampled firms and the aggregates for the certainty (larger) firms. All estimates for 1982 and 1977 published here are simple unbiased estimates of the form:

$$x'_{c} = \sum_{i=1}^{n_{c}} x_{i}/p_{i}$$

where: x'c is the simple unbiased estimate of a characteristic for a publication cell.

> is the reported value of a characteristic for an individual establishment in the publication cell.

is the selection probability of that firm.

is the number of firms in the sample for the cell.

This method of estimation was used for all 1982 and 1977 characteristics. Before this formula was applied, it was necessary to convert into dollars those distributions of construction receipts which had been reported by the establishments as percentages construction receipts by type of project, location of project, etc.

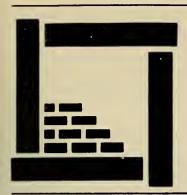
Reliability of employer statistics-Since the estimates for employer establishments in these reports are based on the samples, they are subject to sampling variability and may be expected to differ from results which would have been obtained if a complete census had been taken using the same forms and procedures. The sampling errors shown in the tables were estimates directly from the sample reports, using methods appropriate for the sample design and form of estimation used.

The relative standard error is a measure of sampling variability, i.e., the variation that might occur by chance because only a sample of the population is surveyed. As calculated for this report, the relative standard error also partially reflects the effect of random errors of response and processing, but it does not take into account the effect of any consistent biases due to those types of errors. The chances are about 68 out of 100 that an estimate from the sample would differ from a complete census by less than the relative standard error. The chances are about 95 out of 100 that the difference is less than twice the relative standard error and about 99 out of 100 that it is less than 2-1/2 times the relative standard error. Individual estimates with large relative standard errors have been shown in the published tables. Any such estimates should be used with caution. The very large relative standard errors generally occur for the smaller estimates.

Although relative standard errors have been calculated for all of the published statistics, they are shown for each statistic only in the tables presenting detailed statistics. The other tables show relative standard errors only for some characteristics because of lack of space.

Separate measures of reporting and processing errors are not available. However, estimates which were subject to large errors of these types are likely to have been detected and corrected, or withheld from publication in the process of the review of the data for reasonableness and consistency. Other specific qualifications of the published data are indicated in footnotes

The statistics in this report were based on data received by the time of final publication. Data were imputed for



FINAL REPORT INDUSTRY SERIES

1982

Census of Construction Industries

CC82-I-1 to 28 Changed October 1986

CHANGE SHEET

This revision is to table 4 in the original publications for Industry Series CC82-I-1 to 27 and table 8 for Industry Series CC82-I-28. In the stub, change 1982 (line 8) to read 1981 and 1981 (line 12) to read 1982.



establishments that did not report by that date. Selected establishments were contacted again to obtain as much information on the telephone as possible. Late data received in early 1984 were substituted for imputed data when the difference between the two was significant. Some publication cells in which more than 50 percent of the data were imputed have been suppressed.

Nonemployer Firms

General—As described earlier, the information derived from the business income tax returns of all firms was matched to the census employer file on the basis of common identification numbers. Those business income tax returns which could not be matched, were further classified on the basis of several characteristics. Returns with characteristics consistent with firms without payroll were treated as nonemployers. The nonemployer construction firms were not required to file census reports.

For ''number of establishments,'' each separate income tax return was assumed to be an establishment. ''All business receipts'' was based on receipts information reported on the tax return. In 1982, this group accounted for 60 percent of the total number of construction establishments, but accounted for only 8 percent of all business receipts of all construction establishments.

Qualifications to the nonemployer data—Since no sampling was involved in the nonemployer establishments, the statistics for nonemployers are not subject to sampling variability. However, these data are subject to an unknown amount of reporting and processing errors which could not be detected by the Census Bureau.

CENSUS REPORT FORMS

Information for the 1982 Census of Construction Industries was obtained from employer establishments primarily through the use of eight questionnaires, determined by industry classification and size. Standard forms and short forms were developed for each of the three two-digit SIC groups (15, 16, and 17), and for the establishments classified in SIC 6552. Establishments with 50 or more employees all received the standard form. A sub-sample of establishments with fewer than 50 employees received short forms instead of the standard forms. The short forms covered only major items and omitted most of the detail found in the longer forms.

In reviewing and developing the questionnaires, comments and recommendations were solicited from construction trade associations and appropriate advisory groups. The Census Bureau surveyed several thousand firms representing all economic activities to gain insight into the way companies maintain records and to see whether new information could be collected.

DATA PROCESSING

The 1982 census report forms were mailed out in December 1982. Collection of these report forms, also by mail, was essentially completed in July 1983. They were mailed from and

returned to the Census Bureau's Data Preparation Division in Jeffersonville, Ind., where routine editing and coding of the report forms were also accomplished.

The returned reports underwent extensive processing. A preliminary edit done at the time of data entry identified obviously deficient reports and reports needing clarification. When necessary, these problems were resolved by further contact with the respondents. Next, the data were transmitted to Census Bureau headquarters in Washington, D.C.

Data records, then, underwent a detailed computer review and analysis. The records containing significant problems were referred for further analytical review and, if necessary, contacts were made with the respondents. The computer performed most classification coding (such as industry coding, geographic coding, and size coding) and imputation for missing items or for the small number of reports not received in time for tabulation. The imputation was performed on an industry (or industry group)-State (or geographic group) basis using all available response and administrative data.

The data records were then tabulated on an industry basis. Industry totals were subjected to analytical review, and selected statistics were prepared for the preliminary reports. Corrections resulting from this review were made to the computer records and final tabulations were produced.

The review of a preliminary report for an industry often uncovered the need for corrections or revisions to the data for another industry for which a preliminary report had already been published. The final reports incorporate all revisions and corrections made during the review of the preliminary reports and contain considerable more data than were published in those reports.

GEOGRAPHIC CLASSIFICATION

Information for the 1982 Census of Construction Industries' final industry report series is classified on the basis of two types of geographic distributions: (1) physical location of the establishment, and (2) location of construction work. Separate State codes were assigned based on this information.

The geographic area reports series presents similar data by industry for each State (physical location of the establishment) and for selected SCSA's and SMSA's.

DUPLICATION IN RECEIPTS

The aggregate of construction receipts reported by all construction establishments in each of the several industry, geographic area, or other groupings in this census, contains varying amounts of duplication, since the construction work (and the receipts) of one firm may be subcontracted to other construction firms and also be included in the subcontractors' receipts. To avoid this duplication, a "net construction receipts" figure has been derived for each establishment by subtracting the payments made for construction work subcontracted to others from the total construction receipts.

Duplication in receipts between other construction and nonconstruction industries results from the use of products of these other industries as input materials by construction establishments. "Value added," avoids this duplication and is, for most purposes, the best measure for comparing the relative economic importance of industries or areas. "Value added," is

defined in the 1982 Census of Construction Industries as equal to all business receipts less payments for construction work subcontracted to others and payments for materials, components, supplies, and fuels. However, for SIC 6552 and SIC 1531 where land receipts are significant, value added is defined as equal to all business receipts less land receipts, payments for construction work subcontracted to others, and payments for materials, components, supplies, and fuels.

SPECIAL TABULATIONS

Special tabulations of data collected in the 1982 Census of Construction Industries may be obtained on computer tape or in tabular form. The data will be in summary form and subject to the same rules prohibiting disclosure of confidential information (including name, address, kind of business, or other data for individual business establishments or companies), as are the regular publications.

Special tabulations are prepared on a cost basis. A request for a cost estimate, as well as exact and detailed specifications of the type and format of the data to be provided, should be directed to the Chief, Construction Statistics Division, Bureau of the Census, Washington, D.C., 20233.

To discuss a special tabulation before submitting specifications, call 301-763-5435.

RELATIONSHIPS OF THE ECONOMIC CENSUSES TO **CURRENT SURVEYS**

The Census Bureau also conducts current surveys (monthly, quarterly, and annually) to keep abreast of the rapid changes in business conditions, new processes, new materials, and shifting demands of goods and services. The census universe provides the sampling frame, weights, and benchmarks on which some of these current surveys are based. The accuracy of the measures derived from these current surveys is directly related to the completeness of information provided in the censuses.

COMPARABILITY OF CENSUS OF CONSTRUCTION INDUSTRIES DATA WITH OTHER DATA

Data contained in the reports of the 1982 Census of Construction Industries are not the same as the data published in the Census Bureau's monthly Construction Reports, Series C30, Value of New Construction Put in Place. The main difference is that the C30 series covers all new construction put in place without regard to who is performing the construction activity, whereas, the construction census figures cover both new construction and

maintenance and repair work, but only for establishments classified in the construction industry. Force account construction activity—construction work performed by the labor force of a nonconstruction company for itself, or by other entities (Federal, State, or local governments) for themselves, or by property owners for themselves-probably accounts for more than half of the difference in the data of the two series of reports. Other factors contributing to the difference are that the census data do not include: (1) the value of materials supplied by the owners of projects, (2) the value of separate architectural and engineering services and, to a lesser extent, (3) the value of construction work performed for others by firms outside the scope of construction (manufacturers who install, lumber yards and other businesses, etc.).

Data contained in the reports of the census of construction industries may also differ from industry data in "Employment and Earnings Statistics," published by the Bureau of Labor Statistics, and "Statistics of Income," published by the Internal Revenue Service. These differences arise from varying definitions of scope, coverage, timing, classification, and methodology. Their effect is not fully known.

ABBREVIATIONS AND SYMBOLS

The following abbreviations and symbols are used in this publication:

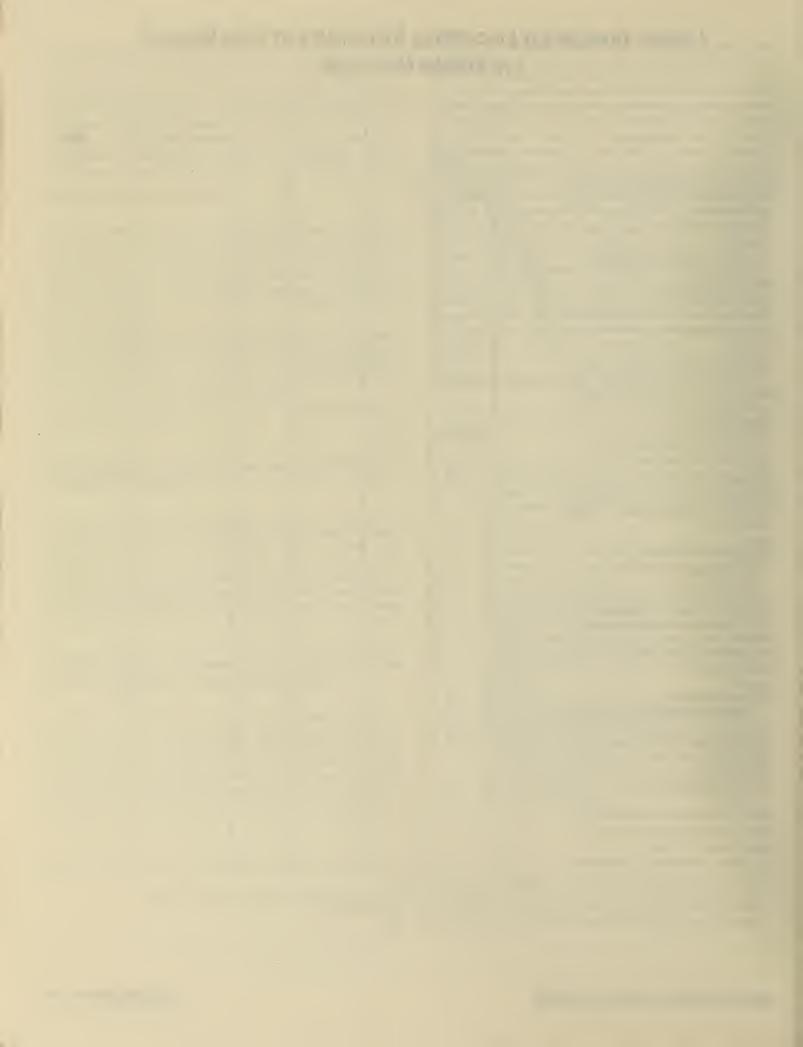
- Sampling error exceeds 40 percent.
- All employees (average) is the sum of construction workers during pay period including 12th of March, May, August, and November divided by 4, added to all others, March 12th.
- Represents zero.
- Represents total construction receipts less payments for construction work subcontracted to others. (See Duplication in Receipts.)
- Represents all business receipts less payments for con-†† struction work subcontracted to others, and payments for materials, components, supplies, and fuels. In SIC's 1531 and 6552, land receipts are also subtracted from "all business receipts." (See Duplication in Receipts.)
- Possible duplication in data. (See Duplication in Receipts.)
- (D) Withheld to avoid disclosing data for individual companies; data are included in higher level totals.
- (NA) Not available.
- (S) Withheld because estimate did not meet publication standards on the basis of either the response rate, associated standard error, or a consistency review.
- Greater than zero but less than 1 percent.
- n.s.k. Not specified by kind.

Users' Guide for Locating Statistics in This Report by Table Number

	,					
Statistics	For U.S.	By State	By employ- ment size	By receipts size	By type, class, ownership, kind of business, and location of construction ¹	By specialization in types of construction
Assets and depreciation (gross book value): Beginning of year—structures, machinery and equipment End of year—total End of year—structures, machinery and equipment Depreciation charges during the year— structures, machinery and equipment		1	5	6		
Capital expenditures: Total capital expenditures New structures—machinery and equipment Used structures—machinery and equipment	1, 3 3 3	1	5	6		
Communication services, payments for	2					
Employees: All employees—average number	1, 2 1, 2, 9 2	1	5	6		8
Employer costs for fringe benefits—legally required and voluntary expenditures	2					
Establishments: Number in business at end of year		1, 9	5	6		8
Hours—construction workers: Total	1, 2, 9 2, 9	1, 9 9	5	6		
Inventories	4					
Materials, components, supplies, and fuels— payments for	1, 2	1	5	6		
Payroll: First quarter, all employees	1, 2 1, 2 1, 2 2	1	5	6		8
Power, fuels, and lubricants—payments for	2					
Profile of the industry—selected industry averages	12					
Proprietors and working partners	2					
Ratios, State	13	13				
Receipts: All business receipts Construction receipts, total For work subcontracted in from others Other business receipts and land receipts ²	1, 2, 4 2 2	1	5 5	6 6	11 2, 7, 10	8
Net construction receipts	1, 2 1, 2	1	5 5	6 6		8 8
Rental payments:						
Total For machinery and equipment For structures	2	1	5	6		
Repairs to structures and related facilities	2					
Repairs to machinery and equipment	2					
Storage capacity for fuels ³						
Subcontract work to others, payments for	1, 2	1	5	6		8

Note: Data for 1977 and earlier years are also available in some of these tables.

¹Type—buildings, roads, etc. Class—new construction or maintenance and repair work. Ownership—private or government owned. ²Other business receipts and land receipts are shown separately for SIC's 1531 and 6552 only. ³Storage capacity for fuels shown only for SIC's 1611, 1622, 1623, and 1629.



General Contractors—Industrial Buildings and Warehouses

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SUMMARY OF FINDINGS

Establishments classified in this industry are primarily engaged in the construction of industrial buildings such as aluminum plants, automobile assembly plants, pharmaceutical manufacturing plants, and commercial warehouses (including new work, additions, alterations, remodeling, and repair). For specific examples, refer to the 1972 Standard Industrial Classification (SIC) Manual and its 1977 supplement.1

During 1982, there were 7,435 establishments with payroll classified in this industry.2 All business receipts of these establishments amounted to \$18.1 billion, of which \$17.8 billion were receipts for construction work. Their payments for construction work subcontracted to others amounted to \$8.5 billion, leaving net construction receipts of about \$9.3 billion. Value added for 1982 was \$5.8 billion. (See Introduction and appendixes for explanation of terms.)

The establishments in this industry made payments of \$3.7 billion for materials, components, and supplies purchased for use in construction work for others, purchased and subsequently provided to subcontractors for their use, purchased and then resold to others, and purchased and used in construction work for their own account. However, materials furnished to contractors by owners of projects are, of course, not included. Payments of \$130 million were also made for selected power, fuels, and

Establishments with 10 employees or more, while representing only 40 percent of the total number of employer establishments in this industry, accounted for 91 percent of all business receipts.

Total average employment in the industry showed an decrease of 24 percent from 1977 to a total of 154 thousand employees. Total payroll for 1982 amounted to \$3.2 billion. Hours worked by construction workers during the first quarter of 1982 were 52.8 million hours, while hours worked during the third quarter were 58.1 million hours.

Payments of \$581 million for employer costs for fringe benefits (not included in payroll) represent expenditures during the year for legally required and voluntary fringe benefit programs for employees-such as employers' Social Security contributions, unemployment compensation, pension plans, and welfare plans.

The 1982 estimates for establishments with payroll in all of the construction industries are based on a probability sample consisting of about 172,000 construction establishments. The estimates for this particular industry are based on a sample of about 4,000 establishments.

The statistics reported by each establishment cover all of its activities, not just construction. Therefore, aggregates of such data for an industry reflect not only the primary construction activities of the establishments in the industry, but also their secondary construction activities and any nonconstruction activities.

All data shown are based on current dollars for the years specified and have not been adjusted for price changes or inflation between 1977 and 1982.

lubricants purchased during the year from other companies or received from other establishments of the parent company.

^{&#}x27;Standard Industrial Classification Manual: 1972. For sale by Superintendent of Documents, U.S. Government Printing Office, Washington, D. C. 20402. Stock No. 041-001-00066-6. 1977 Supplement. Stock No. 003-005-00176-0.

²Limited data for establishments in this industry without payroll (nonemployers) will be included in the U.S. industry summary report to be published after the individual industry reports have been issued.

Table 1. General Statistics for Establishments With Payroll by State: 1982 and 1977

[Thousand dollars. Detail may not add to total due to rounding. For meaning of abbreviations and symbols, see introductory text. For explanation of terms, see appendixes]

	1982							
		Employees**		Payroll				
Location of establishment	Number of establish- ments	All	Construction workers	All employees	Construction workers	Construction worker hours (thousands)	Total construction receipts	Net construction receipts†
	А	В	С	D	Е	F	G	н
United States	7 435	153 821	121 517	3 231 000	2 344 085	219 480	17 834 735	9 293 778
Alabama	108	8 429	7 303	175 495	143 540	15 417	629 783	379 41 7
	47	812	633	20 119	15 660	903	55 225	36 889
	88	827	594	17 134	11 050	1 009	127 550	59 992
	62	987	825	16 760	12 965	1 426	81 766	55 617
	692	11 234	8 627	296 965	219 503	14 086	2 304 475	1 149 336
Colorado Connecticut Delaware District of Columbia Florida	122	2 591	1 950	59 072	41 419	3 607	467 452	226 572
	94	1 022	743	21 237	14 180	1 357	110 877	58 875
	29	626	509	10 968	7 833	949	65 673	31 830
	8	(S)	(S)	(S)	(S)	(S)	(S)	(D)
	323	5 036	4 020	89 293	63 475	7 083	505 501	248 643
Georgia Hawaii Idaho Illinois Indiana	155	3 979	3 213	63 668	45 491	6 042	390 692	181 782
	12	337	270	9 387	7 087	492	50 559	29 979
	69	496	389	7 456	5 688	634	49 601	28 938
	338	5 986	4 250	152 531	99 917	7 153	830 067	430 334
	175	6 098	5 045	122 218	93 654	6 980	453 907	294 710
lowa Kansas	117	2 169	1 807	39 404	30 190	3 034	170 109	123 807
	108	1 281	1 034	22 819	16 572	1 925	110 314	81 366
	113	1 890	1 516	35 702	27 761	2 620	189 297	112 270
	178	5 518	4 693	109 536	90 350	8 422	352 575	253 312
	20	469	425	4 167	3 141	388	29 422	(D)
Mayland	81	1 364	1 053	26 516	18 668	1 896	159 110	63 850
	190	3 008	2 299	62 096	43 402	3 573	417 897	172 366
	328	4 594	3 283	112 214	74 370	5 554	1 454 673	418 330
	135	1 748	1 302	35 221	23 700	2 243	185 071	109 731
	64	1 466	1 191	21 150	15 836	2 287	113 693	83 433
Missouri	169	6 288	5 044	147 989	111 662	8 581	861 383	426 540
	23	232	167	4 884	3 389	266	35 231	25 598
	56	795	533	10 812	8 209	957	48 567	36 241
	40	223	158	4 047	2 374	194	33 813	16 052
	27	422	341	6 508	4 828	649	35 993	19 870
New Jersey	253	3 650	2 909	78 418	58 611	4 528	430 318	206 287
	54	921	744	13 787	10 221	1 074	87 363	47 116
	407	5 744	4 402	118 330	83 209	7 486	694 180	371 143
	186	9 738	7 711	208 244	141 494	21 350	900 657	517 193
	62	718	586	11 415	8 308	911	59 461	43 537
Ohio	400	7 384	4 949	181 229	105 094	8 102	822 126	383 213
	99	1 253	992	20 954	15 926	1 684	122 244	73 502
	102	788	614	15 632	11 567	842	80 671	47 555
	382	6 600	5 191	145 470	111 553	9 176	804 314	436 467
	32	319	212	5 866	3 613	416	34 748	22 709
South Carolina South Dakota Tennessee Texas Utah	90	5 267	4 741	105 011	91 176	9 297	372 059	235 364
	28	232	161	3 113	2 112	276	12 970	10 175
	138	3 620	3 009	58 543	43 294	4 977	327 812	176 872
	548	15 375	12 310	316 989	232 536	23 040	1 519 445	933 823
	88	1 078	880	19 515	15 082	1 403	124 620	61 054
Vermont Virginia Washington West Virginia Wisconsin Wyoming	18 148 197 47 145	573 4 299 2 233 1 030 2 691 127	460 3 550 1 697 846 2 050 93	9 507 73 192 52 219 20 829 59 624 2 332	6 923 46 790 36 715 16 002 42 522 1 525	888 6 510 2 486 1 323 3 414 159	54 608 402 766 293 383 73 905 259 789 11 402	31 088 157 184 146 026 55 407 144 349 8 156

					1977				-Con.	1982-		
Location of establish ment	nate	Relative standard error of estimate (percent) for column—		Value added††	Total construction receipts	All employees**	End-of-year gross book value of depreciable assets	Capital expenditures, other than land	Rental payments for machinery, equipment, and structures	Payments for construction work sub- contracted to others	Payments for materials, components, supplies, and fuels	Value added††
	М	н	В	Q	Р	0	N -	М	L	к	J	ı
U.	1	(W)	1	4 257 546	12 855 514	202 070	1 704 769	166 244	163 301	8 540 9 5 6	3 811 257	5 755 674
Ala. Alaska Ariz. Ark. Calif.	6 23 12 8 2	2 9 7 9	1 7 12 12 2	179 178 31 032 18 915 31 318 282 550	450 506 59 166 59 707 84 916 1 061 105	10 116 431 772 1 765 8 790	24 880 4 929 8 381 15 346 162 069	2 802 1 318 1 021 1 921 14 227	2 873 1 032 963 1 921 17 379	250 366 18 335 67 558 26 149 1 155 139	137 556 13 026 20 083 23 935 311 717	244 421 24 416 41 197 33 009 863 859
Colo.	5	2	3	63 487	168 119	2 297	44 231	3 497	2 197	240 879	143 538	85 534
Conn.	8	5	7	40 236	125 258	1 574	11 222	584	453	52 001	22 344	38 449
Del.	7	5	6	6 133	49 477	972	4 674	588	321	33 843	15 122	17 266
D.C.	-	-	-	(D)	(D)	(D)	(S)	(D)	(D)	(D)	(D)	(S)
Fla.	5	4	3	57 017	302 999	5 165	39 527	5 001	3 941	256 858	125 543	125 992
Ga.	2	3	3	99 194	291 615	5 361	37 890	6 017	2 880	208 910	89 611	96 888
Hawaii	9	4	5	(D)	(D)	209	10 304	335	1 077	20 579	(D)	19 452
Idaho	9	11	12	23 052	61 094	(D)	6 688	2 142	833	20 663	13 916	15 906
III.	3	2	2	302 264	793 279	11 641	91 631	8 155	6 770	399 733	207 742	251 813
Ind.	6	2	2	129 501	348 778	5 692	83 468	3 833	2 601	159 197	146 387	153 901
lowa	2	5	6	79 019	244 687	4 141	28 384	2 400	1 890	46 301	74 643	53 753
Kans.	21	8	8	62 255	154 906	2 840	17 362	2 125	1 074	28 948	(D)	47 044
Ky.	10	5	7	41 882	116 717	2 121	15 920	1 143	1 683	77 027	40 019	72 655
La.	3	2	3	84 912	178 362	4 944	43 749	2 811	7 228	99 263	83 268	174 964
Maine	10	-	7	13 686	38 718	898	2 354	597	106	(D)	7 926	7 493
Md.	6	7	7	42 642	128 429	1 770	11 864	1 327	1 692	95 260	30 370	34 273
Mass.	6	3	4	72 825	242 936	3 290	25 370	1 933	3 370	245 531	67 453	105 759
Mich.	3	2	2	181 340	750 780	7 322	62 060	5 035	4 007	1 036 343	110 919	314 304
Minn.	8	5	6	85 050	269 572	3 566	21 216	1 312	1 485	75 340	61 673	51 031
Miss.	15	8	7	18 937	70 330	1 163	16 615	3 006	1 465	30 260	50 580	38 412
Mo.	2	2	2	122 480	417 977	5 399	113 238	8 035	3 741	434 843	172 494	258 877
Mont.	4	9	14	15 549	42 863	673	2 816	249	317	9 633	15 548	10 212
Nebr.	14	14	21	27 295	95 003	1 460	9 049	537	288	12 326	20 526	16 912
Nev.	22	14	18	12 543	35 960	310	6 333	386	313	17 761	(D)	8 511
N.H.	23	11	9	11 382	35 890	697	6 634	583	523	16 123	8 730	11 177
N.J.	7	4	4	92 478	336 308	4 294	33 116	2 365	3 450	224 031	77 483	133 479
N. Mex.	6	7	10	7 342	17 840	407	7 949	1 012	686	40 247	24 078	24 113
N.Y.	4	2	3	167 601	443 270	7 048	75 959	8 431	6 812	323 037	142 612	234 401
N.C.	2	1	1	115 990	385 144	7 580	111 821	11 770	13 370	383 464	180 377	345 895
N. Dak.	23	13	16	18 390	44 244	813	8 292	595	914	15 924	28 303	15 421
Ohio	3	2	2	257 253	677 052	9 428	78 134	11 541	9 667	438 913	164 400	269 223
Okla.	5	6	8	32 585	104 324	1 540	11 127	1 164	2 005	48 742	41 066	32 820
Oreg.	4	14	14	51 564	193 727	2 048	13 860	856	1 046	33 115	19 933	28 600
Pa.	3	2	3	181 628	567 439	8 788	89 253	8 982	8 335	367 846	167 582	275 787
R.I.	7	8	14	28 465	109 620	1 105	4 091	299	278	12 039	5 510	18 744
S.C.	5	2	3	(D)	1 041 127	(D)	23 112	2 334	2 509	136 695	83 812	153 672
S. Dak.	-	20	21	8 193	20 005	351	3 228	(D)	(D)	2 795	4 338	5 837
Terin.	4	4	3	72 082	260 637	4 432	27 294	1 873	3 451	150 940	81 366	106 351
Tex.	5	1	1	300 186	926 419	14 758	140 223	17 404	21 431	585 622	430 710	545 955
Utah	9	7	6	29 577	94 375	1 431	16 428	1 929	1 458	63 566	32 524	29 791
Vt.	(W)	8	7	5 623	16 191	322	7 304	672	362	23 520	14 757	16 344
Va.	3	3	4	81 761	254 373	4 131	38 797	4 823	7 895	245 582	82 252	80 340
Wash.	5	3	6	99 028	273 587	3 750	27 532	3 200	2 239	147 357	68 444	82 364
W. Va.	17	4	7	42 248	78 246	1 581	15 554	923	1 135	18 498	20 467	38 017
Wis.	2	3	3	109 381	302 254	3 962	38 053	2 447	1 403	115 440	61 408	88 047
Wyo.	7	33	12	4 593	14 241	283	1 840	250	182	3 246	*3 232	4 983

Table 2. Detailed Statistics for Establishments With Payroll: 1982 and Earlier Census Years

[Thousand dollars. Detail may not add to total due to rounding. For meaning of abbreviations and symbols, see introductory text. For explanation of terms, see appendixes]

Item					Relat	ive stan	dard er (percen	ror of
	1982	1977	1972	1967	1982	1977	1972	1967
Number of establishments in business during year	7 435	8 259	9 538	8 295	1	2	2	3
Number of establishments in business at end of year	7 228	(NA)	(NA)	(NA)	1	(NA)	(NA)	(NA)
Proprietors and working partners	1 359	2 867	3 976	4 600	5	5	5	5
All employees**	153 821	202 070	173 094	184 960	1	(W)	1	1
Construction workers:								
March	117 040 124 264 126 577	151 301 169 142 184 358	129 778 139 413 156 317	142 493 153 966 181 383	1	(%) (%)		
November Average	115 135 121 517	177 970 170 787	148 975 144 625	159 338 159 878	1	(W) 1 (W)		1
	121 317	170 707	144 025	139 676	'	(**)		<u> </u>
Other employees: March	32 238	30 337	27 762	24 150	1	1	1	1
Construction worker hours (thousands):	50 707							
January to March	52 797 57 128 58 127	(NA) (NA)	(NA) (NA)	(NA) (NA)	1	(NA)	(NA) (NA)	(NA)
Out to September Total hours worked	51 426 219 480	(NA) (NA) (NA)	(NA) (NA) (NA)	(NA) (NA) (NA)	(W)	(NA) (NA) (NA) (NA) (NA)	(NA) (NA) (NA) (NA) (NA) (NA)	(NA) (NA) (NA) (NA) (NA)
			()					(INA)
Payroll, all employees	3 231 000 2 344 085 886 914	2 852 817 2 247 193	1 729 634 1 356 140 373 494	1 327 593 1 067 884 259 215	(W)	888	1	1
Paýroll, other employees		605 623			'		'	'
First quarter payroll, all employees	770 770	594 176	(NA)	(NA)	(W)	(W)	(NA)	(NA)
Employer costs for fringe benefits	581 050 432 397 148 652	539 369 315 495 223 875	(NA) (NA) (NA)	(NA) (NA) (NA)	(W) (W)	(%) (%)	(NA) (NA) (NA)	(NA) (NA) (NA)
All business receipts	18 107 888 17 834 735	13 063 111 12 855 514	8 666 746 8 507 370	6 784 843 6 700 474	(W) (W)	(W)	1	1
Receipts for work subcontracted in from others	835 351 (NA)	351 937	236 831 (NA)	149 341	(NA)	(VV) 1 (NA)	3	(NA)
Land receipts¹Other business receipts	273 153	(NA) 207 597	159 376	(NA) 84 294	1	1	(NA) 2	2
Net construction receipts†	9 293 778	7 545 253	4 805 838	3 648 122	(W)	(W)	1	1
Value added††	5 755 674	4 257 546	2 751 905	2 120 302	(W)	(W)	1	1
Selected payments	12 352 213	8 805 565	5 914 841	4 653 750	(w)	1	1	1
Materials, components, and supplies ² Construction work subcontracted to others Selected power, fuels, and lubricants	3 680 814 8 540 956 130 442	3 377 489 5 310 261	2 213 309 3 701 532	1 603 292 3 057 504 (NA)	(w)	(W)	(NA)	(NA)
Flectricity	23 988 7 158	117 815 21 841 10 203	(NA) (NA) (NA)	(NA)		1	(NA) (NA)	(NA)
Natural gas Gasoline and diesel fuel (including gasohol) Other, including lubricating oils and greases	90 585 8 710	65 433 20 338	(NA) (NA)	(NA) (NA) (NA)	1 2		(AA) (AA) (AA)	(NA) (NA) (NA) (NA) (NA)
Storage capacity for fuels³ (thousand gallons)	(NA)	(NA)	(NA)	(NA)	(NA)	(NA)	(NA)	(NA)
Rental payments for machinery, equipment, and structures	163 301	135 838	(NA)	(NA) 57 123	1	1	(NA)	(NA)
For machinery and equipment For structures	129 922 33 379	114 051 21 787	72 513 (NA)	(NA)	2	1 1	(NA)	(NA)
Selected purchased servicesCommunication services	127 122 43 916	109 938 40 783	(NA) (NA)	(NA) (NA)	1	2	(NA)	(NA)
Repairs to structures and related facilities	8 500 74 705	8 403 60 751	(NA) (NA)	(NA) (NA) (NA)	2	2 5 2 1	2223	(NA) (NA) (NA) (NA)
Ownership of construction projects:								
Total construction receipts	17 834 735 2 204 610	12 855 514 1 343 270	8 507 370 1 375 323	6 700 474 (NA)	(W)	(W)	1	(NA) (NA)
Privately owned	15 630 124	11 512 244	7 132 047	(NA)	(W)	1	1	(NA)

¹Data were collected separately for establishments classified in SIC 1531, Operative Builders and SIC 6552, Subdividers and Developers, Except Cemeteries. For all other industries, data are included in other business receipts.

²For 1967 and 1972, includes data for power, fuels, and lubricants.

³Data were collected only for establishments classified as heavy construction contractors.

Table 3. Assets, Capital Expenditures, and Depreciation for Establishments With Payroll: 1982 and Earlier Census Years

[Thousand dollars. Detail may not add to total due to rounding. For meaning of abbreviations and symbols, see introductory text. For explanation of terms, see appendixes]

ltem							dard en (percen	
	1982	1977	1972	1967	1982	1977	1972	1967
STRUCTURES, MACHINERY, AND EQUIPMENT								
Beginning-of-year gross book value of depreciable assets	1 600 265 166 244 132 342 33 901 61 740	(NA) 186 722 156 757 29 965 (NA)	(NA) 97 248 79 447 17 801 (NA)	(NA) 64 696 54 361 10 335 (NA)	1 1 3 5	(NA) 2 2 2 3 (NA)	(NA) 2 2 4 (NA)	(NA) 2 2 8 (NA)
End-of-year gross book value of depreciable assets	1 704 769	1 122 051	699 057	(NA)	1	1	2	(NA)
Depreciation charges during year	193 523	102 636	73 741	(NA)	1	1	6	(NA)
Structures, Additions, and Related Facilities								
Beginning-of-year gross book value of depreciable assets	364 628 36 278 29 508 6 770 13 793	(NA) 50 275 43 594 6 681 (NA)	(NA) 27 447 24 293 3 154 (NA)	(NA) 19 523 15 706 3 817 (NA)	2 3 3 3 19	(NA) 6 6 6 (NA)	(NA) 6 4 8 (NA)	(NA) 11 3 19 (NA)
End-of-year gross book value of depreciable assets	387 113	340 453	258 470	(NA)	2	2	4	(NA)
Depreciation charges during year	29 053	16 391	12 620	(NA)	2	2	3	(NA)
Machinery and Equipment								
Beginning-of-year gross book value of depreciable assets	1 235 754 129 966 102 834 38 125 27 131 48 064	(NA) 136 449 113 164 50 704 23 285 (NA)	(NA) 69 801 55 154 (NA) 14 647 (NA)	(NA) 45 173 38 655 (NA) 6 518 (NA)	1 2 1 3 4 2	(NA) 2 1 1 4 (NA)	(NA) 3 2 (NA) 4 (NA)	(NA) 3 2 (NA) 4 (NA)
End-of-year gross book value of depreciable assets	1 317 656	781 597	440 587	(NA)	. 1	1	2	(NA)
Depreciation charges during year	164 469	86 245	61 121	(NA)	1	1	7	(NA)

Table 4. Value of Inventories for Establishments With Payroll: 1982 and 1981

[Thousand dollars. Detail may not add to total due to rounding. For meaning of abbreviations and symbols, see introductory text. For explanation of terms, see appendixes]

Item	Establishments with payroll	Relative standard error of estimate (percent)
All establishments: Number Total construction receipts	7 435 17 834 735	w)
Establishments with inventories: Number	1 492 4 356 161 97 038 9 958 7 290 87 080	7 1 2 8 11 2
End of 1981, total Value for establishments with LIFO reserve Amount of LIFO reserve Value for establishments with no LIFO reserve	99 409 5 788 2 922 93 621	1 13 27 2
Establishments with no inventories: Number Total construction receipts	5 943 13 478 574	1

¹Inventories at cost or market prior to any adjustment to correct to LIFO values.

Table 5. Selected Statistics for Establishments With Payroll by Employment Size Class: 1982 and 1977

[Thousand dollars. Detail may not add to total due to rounding. For meaning of abbreviations and symbols, see introductory text. For explanation of terms, see appendixes]

					Establishm	ents with an	average of-			
Selected statistics	Total	1 to 4 employees	5 to 9 employees	10 to 19 employees	20 to 49 employees	50 to 99 employees			500 to 999 employees	1,000 employees or more
1982										
Number of establishments All employees** Payroll, all employees Construction worker hours (thousands) All business receipts Total construction receipts Net construction receipts Value added†† Payments for materials, components, supplies, and fuels Payments for construction work subcontracted to others	7 435 153 821 3 231 000 219 480 18 107 888 17 834 735 9 293 778 5 755 674 3 811 257 8 540 956	2 773 6 138 80 974 6 822 568 761 563 758 325 915 174 488 156 429 237 843	1 693 11 356 186 544 12 798 1 086 927 631 597 367 741 280 217 438 329	1 355 18 611 338 504 21 884 1 894 543 1 871 921 1 067 741 600 296 490 067 804 179	3 881 230	329 22 378 476 904 31 606 2 632 204 2 607 320 1 387 884 840 575 572 192 1 219 436		32 10 064 232 578 14 155 1 025 707 970 572 537 067 322 205 269 997 433 505	16 10 344 277 622 17 030 4 499 245 2 420 988 1 102 863 803 557 595 223 1 318 125	11 21 697 531 706 41 576 (D) 2 006 464 1 061 655 837 531 (D) 944 809
Rental payments for machinery, equipment, and structures Capital expenditures, other than land End-of-year gross book value of depreciable assets	163 301 166 244 1 704 769	4 941 7 526 98 010	10 786 15 737 160 632	15 507 21 438 241 206	33 992 42 609 357 185	27 383 26 133 246 967	23 592 18 872 204 603	8 834 10 961 99 267	15 459 8 457 109 562	22 806 14 509 187 335
All employees** Total construction receipts Value added†† 1982 RELATIVE STANDARD ERROR OF	202 070 12 855 514 4 257 546	6 478 398 504 108 089	12 588 860 325 262 415	22 063 1 446 649 476 452	38 731 2 860 116 925 957	28 687 2 102 811 709 660	21 805 1 469 948 463 403	20 809 1 389 675 368 780	9 416 497 589 225 300	41 494 1 829 897 717 490
All employees** Net construction receipts†	(w)	4 4 13	4 4 11	3 2 5	1 1	(W) (W) (W)	(W) (W) (W)	888	388	(W) (W) (W)

Note: Underscored data fields include data from adjoining columns which have been withheld to avoid disclosing data for individual companies.

Table 6. Selected Statistics for Establishments With Payroll by Receipts Size Class: 1982 and 1977

[Thousand dollars. Detail may not add to total due to rounding. For meaning of abbreviations and symbols, see introductory text. For explanation of terms, see appendixes]

					Establish	ments with a	II business re	ceipts of-			
Selected statistics	Total	Less than \$25,000	\$25,000 to \$49,999	\$50,000 to \$99,999	\$100,000 to \$249,999	\$250,000 to \$499,999	l to	\$1,000,000 to \$2,499,999	\$2,500,000 to \$4,999,999	\$5,000,000 to \$9,999,999	\$10,000,000 or more
Number of establishments	7 435 153 821 3 231 000 219 480 81 107 888 17 834 735 9 293 778 5 755 674 3 811 257 8 540 956 163 301 166 244 1 704 769	352 394 1 317 301 4 456 4 440 2 856 1 737 1 134 1 584 (D)	303 562 3 423 479 11 175 11 080 7 873 4 665 3 303 3 207 111 117 3 075	623 1 386 12 122 1 383 45 077 44 506 34 189 20 932 13 828 10 316 431 828 11 821	1 285 5 251 56 055 5 198 209 194 207 035 156 561 93 280 65 439 50 474 2 786 3 865 54 683	1 217 7 592 105 103 8 681 440 315 434 474 304 603 183 734 126 709 129 871 4 763 10 071 91 632	1 049 11 122 175 730 12 824 751 456 739 611 498 500 291 430 218 913 241 111 8 064 11 168	2 044 597	607 20 302 416 224 28 087 2 122 548 2 096 631 1 187 252 673 189 539 980 909 378 18 621 26 142 241 727	379 20 761 456 239 28 206 2 634 018 2 599 495 1 372 188 821 223 585 488 1 227 307 26 107 27 780 233 956	293 63 770 1 590 014 105 442 9 818 097 9 652 864 4 478 534 2 977 069 1 666 698 5 174 330 80 135 63 500 673 456
All employees** Total construction receipts Value added†† 1982 RELATIVE STANDARD ERROR OF ESTIMATE (PERCENT) All employees** Net construction receipts† Capital expenditures, other than land	202 070 12 855 514 4 257 546	548 4 235 1 556 8 10	923 15 414 5 018 11 10 47	2 203 58 725 22 381 7 7 7 30	8 098 270 340 94 853 6 5	11 063 486 568 170 960	16 921 896 092 323 369	33 100 2 105 282 731 551 2 2 3 6	27 661 1 976 390 663 017 (W) (W) (W)	1101 555 17 042 469 12 244 841 (W) (W) (W)	(NA) (NA) (NA)

Note: Underscored data fields include data from adjoining columns which have been withheld to avoid disclosing data for individual companies.

Data for this size class include establishments with receipts of \$10,000,000 or more, which were not tabulated separately in 1977.

Table 7. Construction Receipts for Establishments With Payroll by Type of Construction: 1982 and 1977

[Thousand dollars. Detail may not add to total due to rounding. For meaning of abbreviations and symbols, see introductory text. For explanation of terms, see appendixes]

		Construct	tion receipts		Relative standard error of			
		New co	nstruction			mate (p	ercent)	
Type of construction	Total	Total	Additions and alterations ¹	Maintenance and repair		colun	nn—	
	A	В	С	D	A	В	С	D
1982								
Total construction receipts‡	17 834 735	16 577 447	3 102 876	1 257 287	(W)	(W)	1	1
Building construction	17 348 328 168 365	16 156 500 150 477	3 05 7 944 45 640	1 191 8 27 17 887	(W)	(W)	1 5 6	1 6
Single-family houses	105 870 62 494	89 509 60 968	38 833 6 806	16 361 1 526	4	4	6	6
Single-family houses, attached	164 967	158 525	30 879	6 441	4 2 2	2	7 5 3 1 2 3 1	19 13 8 4 5 5
Other residential buildingsOffice and bank buildings	1 431 186	110 165 1 379 236	13 852 253 131	2 908 51 950	1	2	1	4
Office buildingsBank buildings and other financial institutions	1 127 213 303 972	1 083 435 295 800	204 320 48 810	43 778 8 172	1	1	2	5
Industrial buildings and warehouses	13 997 926	12 949 707 10 870 581	2 329 841 2 027 216	1 048 219 933 400	(8)	(X)	1	1
Warehouses	2 193 945 463 703	2 079 125 441 850	302 625 90 773	114 819 21 852	1	1	2	
Religious buildings	105 746	100 349	29 808	5 396	2	2	1 2 2 5 3	3 3 5 8 3
Educational buildingsHospitals and institutional buildings	480 445	254 654 464 921	74 187 157 368	12 971 15 524 8 679	2 (W) 9	(W)	3	8
Other nonresidential buildings	155 292	146 617	32 465	8 679	9	`10	6	17
Nonbuilding construction	480 050	415 647	44 753	64 402 2 556	1	1	1	2
Sewage treatment and water treatment plants Power plants	116 707 6 315	114 151 5 280	9 919 2 706	2 556 1 034	(W)	(S)	(W) (W)	(W)
Other nonbuilding construction	357 028	296 216	32 128	60 812	ìi	ìí) f	` 4
Construction work, n.s.k.	6 356	5 29 8	*178	1 057	16	18	56	30
4077								
1977		1						
Total construction receipts‡	12 855 514	11 363 166	(NA)	1 492 348	(W)	1	(NA)	1
Building construction		10 541 236	(NA)	1 443 125	(W)	(W)	(NA)	1
Single-family houses Apartment buildings with two or more apartments	115 485	104 452	(NA) (NA)	39 781 11 033	1	1	(NA) (NA)	3 8 3
Other residential buildingsOffice and bank buildings	65 206 627 834	60 665 552 386	(NA)	4 541 75 448	2	2	(NA) (NA)	3
			<u>```</u>				`	
Industrial buildings and warehousesStores, restaurants, public garages, and automobile service stations	9 742 170 371 831	8 562 607 338 134	(NA) (NA)	1 179 563 33 697	(W)	(W)	(NA) (NA)	2
Religious buildings	95 475 277 434	85 255 250 204	(NA)	10 220 27 230	1	1	(NA) (NA)	3
Luddan Mar Bollan go	277 404	200 204	(10.0)	27 200	,	· ·	(,,,,	Ĭ
Hospitals and institutional buildingsAmusement, social, and recreational buildings	368 390 84 677	323 162 77 942	(NA)	45 228 6 735	1 2 5	1 2	(NA) (NA)	1
Other nonresidential buildings	84 668	75 020	(NA)	9 648	5	2 5	(NA) (NA)	4
Nonbuilding construction	867 595	818 684	(NA)	48 911	(W)	(W)	(NA)	1
Sewage treatment and water treatment plantsPower plants		150 328 452 864	(NA) (NA)	1 880 11 540	(W)	(W) (W)	(NA) (NA)	6 2
Other nonbuilding construction	250 983		(NA)	35 491	1	1	(NA)	1
Construction work, n.s.k.	3 615	3 139	(NA)	476	3	3	(NA)	(W)
			1	1				<u></u>

¹For 1977, separate data were not collected. These data are included with "New Construction."

Table 8. Selected Statistics for Establishments With Payroll by Specialization in Types of Construction: 1982

[Thousand dollars. Detail may not add to total due to rounding. This table presents selected statistics for establishments according to degree of specialization in major types of construction work. If number of establishments or total receipts for a given type of specialization are relatively insignificant, data may not be shown. In addition, data are not shown in this table where distribution of construction receipts by type of construction was not provided in table 7. For meaning of abbreviations and symbols, see introductory text. For explanation of terms, see appendixes]

				Total constru	ction receipts			Payments for		elative	
Item	Number of establishments	All employees**	Payroll, all employees	For all types	For specialized type	Net construction receipts†	Value added††	construction work sub- contracted to others	of e	estima cent)	ate for
	А	В	С	D	Е	F	G	н	В	D	н
All establishments	7 435	153 821	3 231 000	17 834 735	11 567 073	9 293 778	5 755 674	8 540 956	1	(W)	(W)
Establishments not specializing by type Establishments specializing 51 percent or more	1 501 5 934	31 992 121 829	646 537 2 584 462	3 890 662 13 944 073	(NA) 11 567 073	1 932 275 7 361 503	1 063 317 4 692 357	1 958 386 6 582 569	1	(W)	(W)
WAREHOUSES											
All establishments specializing in type	972	13 527	241 456	1 583 046	1 248 506	816 780	406 070	766 26 5	2	2	1
Establishments with— 100 percent specialization 90 to 99 percent specialization 80 to 89 percent specialization 70 to 79 percent specialization 60 to 69 percent specialization 51 to 59 percent specialization	378 99 94 151 175 74	4 564 1 604 966 1 934 2 989 1 470	79 799 25 782 17 000 34 822 55 791 28 261	423 393 222 674 106 979 236 804 374 151 219 044	423 393 211 256 87 663 172 597 232 451 121 144	286 964 72 769 54 496 123 588 184 855 94 107	140 725 (D) 29 913 67 593 96 534 59 399	136 429 149 905 52 483 113 215 189 296 124 937	469956	3 4 7 4 4 3	2 4 6 4 4 2
INDUSTRIAL BUILDINGS											
All establishments specializing in type	4 862	107 604	2 333 864	12 321 874	10 287 720	6 515 719	4 266 854	5 806 154	1	(W)	(W)
Establishments with— 100 percent specialization	2 797 366 444 461 554 239	44 961 11 612 12 632 10 392 17 739 10 266	939 116 281 472 274 374 214 924 401 534 222 443	4 364 526 1 362 253 2 278 817 1 139 050 1 949 161 1 228 066	4 364 526 1 285 345 1 892 408 833 691 1 244 063 667 686	2 738 339 660 611 834 143 618 006 1 051 686 612 933	1 828 324 510 316 521 838 346 402 723 172 336 801	1 626 186 701 642 1 444 674 521 043 897 475 615 133	1 2 1 2 1	1 1 1 2 1	1 1 (W) 1 1

Table 9. Quarterly Construction Worker Hours and Employment for Establishments With

[Detail may not add to total due to rounding. For meaning of abbreviations and symbols, see introductory text. For explanation of terms, see appendixes]

		Average		January	to March	April to	June
Location of establishment	Number of establishments	number of construction workers	Construction worker hours (thousands)	Construction workers ¹	Hours worked (thousands)	Construction workers1	Hours worked (thousands)
	Α	В	С	D	Е	F	G
United States	7 435	121 517	219 480	117 040	52 797	124 264	57 128
Alabama Alaska Arizona Arkansas California	108	7 303	15 417	7 524	4 009	8 247	4 320
	47	633	903	548	189	677	232
	88	594	1 009	595	243	562	249
	62	825	1 426	710	297	908	401
	692	8 627	14 086	8 847	3 473	8 613	3 618
Colorado Connecticut Delaware District of Columbia Florida	122	1 950	3 607	1 920	898	1 827	859
	94	743	1 357	692	316	692	322
	29	509	949	430	195	478	223
	8	(S)	(S)	(S)	(S)	(S)	(S)
	323	4 020	7 083	4 032	1 736	3 804	1 648
Georgia Hawaii Idaho Illinois Indiana	155	3 213	6 042	3 651	1 673	3 250	1 565
	12	270	492	259	111	272	127
	69	389	634	291	99	337	148
	338	4 250	7 153	3 775	1 629	4 442	1 850
	175	5 045	6 980	4 484	1 513	4 972	1 752
lowa	117	1 807	3 034	1 376	566	1 743	712
Kansas	108	1 034	1 925	995	446	1 101	531
Kentucky	113	1 516	2 620	1 499	645	1 485	671
Louisiana	178	4 693	8 422	4 991	2 180	4 563	2 265
Maine	20	425	388	148	43	594	127
Maryland	81	1 053	1 896	920	424	981	465
	190	2 299	3 573	2 095	789	2 264	864
	328	3 283	5 554	2 930	1 327	3 152	1 268
	135	1 302	2 243	984	432	1 311	557
	64	1 191	2 287	1 069	471	1 308	636
Missouri	169	5 044	8 581	5 102	2 013	5 827	2 555
	23	167	266	174	70	146	55
	56	533	957	360	152	434	205
	40	158	194	158	50	148	47
	27	341	649	282	139	328	157
New Jersey	253	2 909	4 528	2 811	1 084	2 853	1 116
	54	744	1 074	727	256	712	263
	407	4 402	7 486	3 604	1 587	4 377	1 851
	186	7 711	21 350	8 235	5 795	8 224	5 761
	62	586	911	475	184	507	206
Ohio	400	4 949	8 102	3 984	1 643	4 857	2 012
Oklahoma	99	992	1 684	1 104	463	942	401
Oregon	102	614	842	617	202	731	267
Pennsylvania	382	5 191	9 176	4 564	2 043	5 385	2 424
Rhode Island	32	212	416	225	116	232	116
South Carolina South Dakota Tennessee Texas Utah	90	4 741	9 297	4 332	2 070	4 559	2 244
	28	161	276	121	47	148	63
	138	3 009	4 977	2 912	1 210	3 210	1 322
	548	12 310	23 040	13 283	6 144	12 827	6 281
	88	880	1 403	655	255	765	302
Vermont	18	460	888	409	192	452	212
	148	3 550	6 510	3 704	1 633	3 834	1 760
	197	1 697	2 486	1 626	580	1 830	685
	47	846	1 323	795	306	912	353
	145	2 050	3 414	1 716	701	2 144	889
	29	93	159	121	51	98	45

¹Sum of construction workers during pay periods including 12th of March, May, August, and November.

Payroll by State: 1982

July to Sep	ptember	October to I	December											
Construction workers1	Hours worked (thousands)	Construction workers ¹	Hours worked (thousands)			Relative	standard e	rror of esti	mate (perc	ent) for co	lumn—			Location of establish- ment
н	1	J	К	В	С	D	Е	F	G	Н	1	J	К	ment
126 577	58 127	115 135	51 426	1	(W)	1	1	1	1	1	1	1	1	U.S
7 331	3 911	6 041	3 176	1	1	1	1	1	1	1	1	1	1	Ala.
697	259	596	221	8	6	8	7	8	7	9	9	9	7	Alaska
585	258	592	258	12	9	14	11	11	11	11	10	12	11	Ariz.
985	420	675	306	12	11	11	12	13	13	13	13	16	17	Ark.
8 703	3 636	8 091	3 358	2	1	2	2	2	2	3	2	3	2	Calif.
2 169	995	1 850	854	3	3	3	3	3	3	3	3	4	4	Colo.
800	377	743	342	7	7	7	8	7	8	8	8	7	8	Conn.
523	257	592	272	6	6	8	9	8	7	7	6	5	5	Del.
(S)	(S)	(S)	(S)	-	-	-	-	-	-	-	-	-	-	D.C.
4 387	2 007	3 804	1 690	3	3	3	4	3	4	3	3	4	4	Fla.
3 137	1 506	2 741	1 297	3	2	3	3	3	3	3	3	3	3	Ga.
272	129	274	124	5	5	6	6	5	5	5	6	4	4	Hawaii
570	247	334	139	13	16	17	21	12	18	13	19	18	23	Idaho
4 467	1 944	4 122	1 728	2	2	3	3	3	4	3	2	3	3	III.
5 735	2 010	4 897	1 704	2	2	2	2	2	2	2	2	2	2	Ind.
2 150	941	1 871	814	6	5	6	6	7	5	6	5	7	6	lowa
1 057	513	939	433	8	7	7	8	8	8	9	8	10	9	Kans.
1 505	678	1 489	624	7	7	7	8	7	8	7	8	7	8	Ky.
4 244	1 934	4 943	2 041	3	2	4	4	5	4	3	3	2	2	La.
439	93	516	123	8	15	14	31	4	12	7	18	7	16	Maine
1 203	530	1 069	478	7	7	7	8	8	8	6	7	6	8	Md.
2 396	967	2 364	951	4	4	4	4	4	4	4	4	4	4	Mass.
3 669	1 611	3 219	1 347	3	2	3	3	2	3	3	3	3	3	Mich.
1 499	664	1 362	589	7	6	7	7	7	7	8	8	7	7	Minn.
1 212	597	1 173	581	7	6	8	7	7	7	6	7	7	7	Miss.
5 043	2 291	4 115	1 721	3	2	2	2	3	3	5	4	3	3	Mo.
162	67	180	72	11	12	13	16	5	10	11	14	23	26	Mont.
741	331	585	267	13	12	12	14	12	12	13	13	17	18	Nebr.
168	56	125	40	19	17	20	23	20	29	18	27	19	23	Nev.
402	182	349	169	7	7	7	7	8	9	8	8	8	9	N.H.
3 127 778 5 067 7 933 669	1 184 295 2 166 5 536 263	2 764 733 4 409 6 390 642	1 141 259 1 882 4 256 257	4 12 3 1 1	4 10 3 1 11	4 12 3 1 16	4 10 3 1 15	13 3 1 20	5 12 3 1 1	4 12 3 2 18	5 13 4 2 11	4 11 4 2 16	5 11 4 1 16	N.J. N. Mex. N.Y. N.C. N. Dak.
5 461	2 293	5 242	2 153	2	2	2	3	2	3	2	2	2	2	Ohio
960	418	905	400	8	6	11	9	8	7	9	7	8	7	Okla.
547	196	546	176	14	13	16	16	16	17	14	15	15	15	Oreg.
5 535	2 435	5 088	2 273	2	2	2	2	3	2	3	3	3	3	Pa.
195	97	172	85	13	15	12	15	13	17	13	19	16	21	R.I.
4 706	2 360	5 320	2 821	2	2	2	2	2	2	2	2	2	2	S.C.
168	70	212	94	19	18	21	27	19	22	19	21	28	30	S. Dak.
3 006	1 316	2 860	1 127	3	3	3	3	5	4	3	4	3	3	Tenn.
12 268	5 756	10 697	4 858	1	1	1	1	1	1	2	1	2	2	Tex.
1 024	392	1 055	452	6	6	9	9	7	9	5	7	6	10	Utah
492	239	480	245	7	7	8	8	13	11	5	6	6	7	Vt.
3 423	1 612	3 183	1 504	4	3	4	3	3	3	4	3	4	3	Va.
1 736	678	1 506	542	6	5	5	5	10	8	7	7	7	6	Wash.
904	364	760	300	7	5	8	6	8	7	6	5	6	6	W. Va.
2 050	892	2 253	932	3	3	3	4	3	3	3	4	3	3	Wis.
80	33	65	29	12	13	14	15	11	19	13	24	15	24	Wyo.

Table 10. Construction Receipts for Establishments With Payroll by Location of Construction Work: 1982 and 1977

[Thousand dollars. Detail may not add to total due to rounding. For meaning of abbreviations and symbols, see introductory text. For explanation of terms, see appendixes]

			1982							
Location of construction work	Construction	Construction establishmen this	work done by its located in State	Construction establishment in this	s not located	1977 construction	Percent change 1982/	error (pe	ve stan of estin rcent) fo	nate or
	receipts for work done in this State	Number	Construction receipts	Number	Construction receipts	receipts for work done in this State	1977 (col A÷F)			
	А	В	С	D	E	F	G	Α	С	E
United States	17 834 735	7 238	14 258 611	2 297	3 576 123	12 855 514	38.7	(W)	(W)	(W)
AlabamaAlaskaArizonaArkansasCalifornia	258 426 57 877 237 066 117 141 2 407 698	107 47 88 62 690	232 896 55 225 125 296 73 748 2 223 516	39 11 16 43 41	25 529 2 652 111 770 43 393 184 182	397 937 75 886 70 387 124 946 1 045 505	-35.1 -23.7 236.8 -6.2 130.3	3 9 3 8 1	3 10 6 12 1	8 24 (W) 3 2
Colorado Connecticut Delaware District of Columbia Florida	367 130 114 322 72 412 35 667 630 864	120 88 28 5 323	255 647 101 788 55 887 (D) 483 937	44 35 22 10 65	111 483 12 533 16 525 (D) 146 926	169 528 149 685 50 094 5 283 368 711	116.6 -23.6 44.6 575.1 71.1	2 6 2 1 2	2 4 3 - 3	2 36 3 -
Georgia Hawaii Idaho Illinois Indiana	511 946 52 505 47 425 856 057 478 071	155 12 66 327 165	344 691 (D) 38 356 605 341 410 251	85 2 36 98 78	167 254 (D) 9 068 250 715 67 819	441 364 17 885 61 638 808 745 397 371	16.0 193.6 -23.1 5.9 20.3	2 3 7 1 2	2 8 2 2	1 19 2 8
lowa	189 593 132 695 248 261 477 907 39 639	116 98 109 178 20	153 647 82 813 173 209 327 971 24 978	62 66 86 51 20	35 945 49 881 75 052 149 936 14 661	314 930 200 584 156 685 229 156 77 603	-39.8 -33.8 58.4 108.6 -48.9	4 8 4 2 4	5 11 6 3 7	2 5 3 (W) 2
Maryland	210 112 436 010 1 195 228 181 445 134 528	81 187 320 125 60	147 604 400 512 1 047 700 158 604 98 096	53 50 55 55 57	62 508 35 497 147 528 22 841 36 432	130 132 256 286 715 214 218 989 91 021	61.5 70.1 67.1 -17.1 47.8	3 3 1 4 5	4 2 1 4 6	4 15 1 12 8
Missouri	937 498 45 224 64 323 40 922 34 700	162 23 46 40 25	(D) 25 837 44 140 28 661 25 663	51 28 41 19 9	(D) 19 387 20 182 12 260 9 036	306 123 50 668 106 303 43 194 35 692	206.2 -10.7 -39.5 -5.3 -2.8	1 7 11 8 9	12 16 11 12	5 (W) (W)
New Jersey New Mexico New York North Carolina North Dakota	418 774 115 154 671 587 505 001 72 430	247 54 395 182 62	385 322 80 866 577 266 402 170 50 099	50 23 47 40 29	33 452 34 287 94 321 102 830 22 330	340 949 27 850 436 517 411 372 56 567	22.8 313.5 53.9 22.8 28.0	3 4 2 2 10	4 6 2 2 14	2 1 (W) 1 2
Ohio	652 349 219 416 90 411 760 802 31 771	389 98 97 352 32	566 743 115 750 68 465 679 472 29 871	85 78 33 62 13	85 606 103 665 21 945 81 329 1 900	621 284 186 630 198 095 555 711 43 131	5.0 17.6 -54.4 36.9 -26.3	2 4 9 2 9	2 7 10 1 9	1 1 14 4 24
South Carolina South Dakota Tennessee Texas Utah	374 761 12 854 344 890 1 574 942 116 951	87 23 135 539 88	246 770 10 666 219 249 1 374 581 109 531	41 20 46 78 17	127 990 2 188 125 640 200 361 7 419	370 241 40 227 288 157 1 007 312 88 250	1.2 -68.0 19.7 56.4 32.5	2 13 3 1 7	3 16 4 1 7	12 1 2 6
Vermont Virginia Washington West Virginia Wisconsin Wyoming	51 126 430 211 385 343 93 371 252 295 47 575	18 143 197 47 140 29	48 823 313 326 (D) 48 567 234 818 8 885	11 76 46 78 42 48	2 302 116 884 (D) 44 804 17 477 38 689	19 560 339 500 254 670 122 961 277 412 51 697	161.4 26.7 51.3 -24.1 -9.1 -8.0	6 2 2 3 3 7	6 3 - 7 3 19	14 1 - 1 3 8

Table 11. All Business Receipts for Establishments With Payroll by Kind of Business **Activity: 1982 and 1977**

[Thousand dollars. Detail may not add to total due to rounding. Based on their primary business activity or combination of activities, establishments were classified into this specific industry. These establishments, however, may also be engaged in other kinds of business activities. For meaning of abbreviations and symbols, see introductory text. For explanation of terms, see appendixes]

Primary and other kinds of business activities	All busines	ss receipts	Relative stan	
	1982	1977	1982	1977
All kinds of business	18 107 888	13 063 111	(W)	1
General building contractor Operative builder Investment builder Highway and street contractor Heavy construction contractor	14 778 024 53 948 50 605 128 514 431 250	11 985 105 47 345 57 043 54 189 160 014	(W) 3 5 1	1 4 2 1 (W)
Construction management		228 768 13 223 (NA) 17 592 30 314	1 11 5 4 6	2 4 (NA) 3 1
Plumbing contractor	22 706 31 516 8 908 126 931 33 986	(NA) (NA) 19 734 77 306 (NA)	6 7 9 1 3	(NA) (NA) 4 1 (NA)
Rental of construction machinery or equipment to others	29 170 20 281 10 771 832 958	20 736 25 333 (NA) 326 409	2 5 7 8	2 3 (NA) 4

Table 12. Profile of Establishments With Payroll in This Industry: 1982 and Earlier Census **Years**

[For meaning of abbreviations and symbols, see introductory text. For explanation of terms, see appendixes]				
Selected statistics	1982	1977	1972	Relative standard error of estimate (percent) for 1982
AVERAGE PER ESTABLISHMENT				
Number of employees** Number of construction workers Number of all other employees Payroll, all employees Construction worker wages do. Other employee salaries do.	20.7 16.3 4.3 434.6 315.3 119.3	24.5 20.7 3.7 345.4 272.1 73.3	18.2 15.2 2.9 181.3 142.2 39.2	1 1 (W) (W)
All business receipts	2 435.5 2 398.8 512.6 1 148.8 22.4 229.3	1 581.7 1 556.6 423.2 643.0 22.6 135.9	908.7 891.9 232.1 388.1 10.2 73.3	(W) (Y) 1 (W) 1
AVERAGE PER EMPLOYEE				
Payroll, all employees	21.0 117.7 37.4	14.1 64.7 21.1	10.0 50.1 15.9	(W) (W) (W)
AVERAGE PER CONSTRUCTION WORKER				
Construction worker wages do_ Total construction receipts do_ Construction worker hours thousand_	19.3 146.8 1.8	13.2 75.3 (NA)	9.4 58.8 (NA)	(W) (W) (W)
AVERAGE PER OTHER EMPLOYEE				
Other employee salaries \$1,000_	27.5	20.0	13.5	1
AVERAGE PER DOLLAR OF TOTAL CONSTRUCTION RECEIPTS				
Payroll, all employees	.181 .214 .479 .009	.222 .272 .413 .015 .011	.203 .260 .435 .011 (NA)	(W) 1 (W) 1

Table 13. Selected Industry Ratios for Establishments With Payroll by State: 1982

[For meaning of abbreviations and symbols, see introductory text. For explanation of terms, see appendixes]

					Average per dollar of total construction receipt				
Location of establishment	Average number of employees** per estab- lisment	Payroll per employee (\$1,000)	Construction worker hours per construction worker (thousands)	Total construction receipts per construction worker (\$1,000)	Payroll, all employees	Payments for materials, components, supplies, and fuels	Payments for construction work sub- contracted to others	Capital expenditures, other than land	Rental payments for machinery, equipment, and structures
United States	20.7	21.0	1.8	146.8	.181	.214	.479	.009	.009
AlabamaAlaskaAlaskaArizona	78.0	20.8	2.1	86.2	.279	.218	.398	.004	.005
	17.3	24.8	1.4	87.2	.364	.236	.332	.024	.019
	9.4	20.7	1.7	214.7	.134	.157	.530	.008	.008
	15.9	17.0	1.7	99.1	.205	.293	.320	.023	.023
	16.2	26.4	1.6	267.1	.129	.135	.501	.006	.008
Colorado	21.2	22.8	1.8	239.7	.126	.307	.515	.007	.005
	10.9	20.8	1.8	149.2	.192	.202	.469	.005	.004
	21.6	17.5	1.9	129.0	.167	.230	.515	.009	.005
	(S)	(S)	(S)	(S)	(S)	(D)	(D)	(D)	(D)
	15.6	17.7	1.8	125.7	.177	.248	.508	.010	.008
Georgia Hawaii Idaho Illinois Indiana	25.7 28.1 7.2 17.7 34.8	16.0 27.9 15.0 25.5 20.0	1.9 1.8 1.6 1.7	121.6 187.3 127.5 195.3 90.0	.163 .186 .150 .184 .269	.229 (D) .281 .250 .323	.535 .407 .417 .482 .351	.015 .007 .043 .010 .008	.007 .021 .017 .008 .006
lowa	18.5	18.2	1.7	94.1	.232	.439	.272	.014	.011
Kansas	11.9	17.8	1.9	106.7	.207	(D)	.262	.019	.010
Kentucky	16.7	18.9	1.7	124.9	.189	.211	.407	.006	.009
Louisiana	31.0	19.9	1.8	75.1	.311	.236	.282	.008	.021
Maine	23.4	8.9	.9	69.2	.142	.269	(D)	.020	.004
Maryland Massachusetts Michigan Minnesota Mississippi	16.8 15.8 14.0 12.9 22.9	19.4 20.6 24.4 20.1 14.4	1.8 1.6 1.7 1.7	151.1 181.8 443.1 142.1 95.5	.167 .149 .077 .190 .186	.191 .161 .076 .333 .445	.599 .588 .712 .407 .266	.008 .005 .003 .007 .026	.011 .008 .003 .008 .013
Missouri Montana Nebraska Nevada New Hampshire	37.2	23.5	1.7	170.8	.172	.200	.505	.009	.004
	10.1	21.1	1.6	211.0	.139	.441	.273	.007	.009
	14.2	13.6	1.8	91.1	.223	.423	.254	.011	.006
	5.6	18.1	1.2	214.0	.120	(D)	.525	.011	.009
	15.6	15.4	1.9	105.6	.181	.243	.448	.016	.015
New Jersey New Mexico New York North Carolina North Dakota	14.4	21.5	1.6	147.9	.182	.180	.521	.005	.008
	17.1	15.0	1.4	117.4	.158	.276	.461	.012	.008
	14.1	20.6	1.7	157.7	.170	.205	.465	.012	.010
	52.4	21.4	2.8	116.8	.231	.200	.426	.013	.015
	11.6	15.9	1.6	101.5	.192	.476	.268	.010	.015
Ohio	18.5	24.5	1.6	166.1	.220	.200	.534	.014	.012
	12.7	16.7	1.7	123.2	.171	.336	.399	.010	.016
	7.7	19.8	1.4	131.4	.194	.247	.410	.011	.013
	17.3	22.0	1.8	154.9	.181	.208	.457	.011	.010
	10.0	18.4	2.0	163.9	.169	.159	.346	.009	.008
South Carolina South Dakota Tennessee Texas Utah	58.5	19.9	2.0	78.5	.282	.225	.367	.006	.007
	8.3	13.4	1.7	80.6	.240	.334	.215	(D)	(D)
	26.2	16.2	1.7	108.9	.179	.248	.460	.006	.011
	28.1	20.6	1.9	123.4	.209	.283	.385	.011	.014
	12.3	18.1	1.6	141.6	.157	.261	.510	.015	.012
Vermont Virginia	31.8 29.0 11.3 21.9 18.6 4.4	16.6 17.0 23.4 20.2 22.2 18.4	1.9 1.8 1.5 1.6 1.7	118.7 113.5 172.9 87.4 126.7 122.6	.174 .182 .178 .282 .230 .205	.270 .204 .233 .277 .236 *.283	.431 .610 .502 .250 .444 .285	.012 .012 .011 .012 .009 .022	.007 .020 .008 .015 .005

APPENDIX A. Explanation of Terms

Construction—Is composed of three broad categories: (1) new construction, (2) additions and alterations, and (3) maintenance and repair. "New construction" includes the complete, original erection of structures and essential service facilities and the initial installation of integral equipment such as elevators and escalators. "Additions and alterations" includes construction activity making structural changes to existing facilities. "Maintenance and repair" includes the restoration of existing buildings or other structures or their service facilities, including the replacement of integral parts. Repainting, repapering, reroofing, etc., are also included.

Construction includes:

- special trade contracting such as electrical work, painting, and carpentering on mobile structures (trailers, mobile homes, and ships).
- support activities by construction contractors on mineral properties, except the following: sinking mine shafts; tunneling and shoring mines; erection, repairing and dismantling of drilling rigs; and building well foundations.
- the physical development of land for purposes other than agriculture.
- · demolition of existing structures.

Construction does not include:

- shipbuilding.
- · manufacturing of other mobile structures.

Number of establishments in business during year—Includes all establishments that were in business at any time during the year. It covers all full-year and part-year operations. Construction establishments which were inactive or idle for the entire year were not included.

Number of establishments in business at end of year—Includes all full-year or part-year establishments that were in business at the end of 1982.

Proprietors and working partners—These data were not collected on the census report forms. The data shown are based on crediting each sole proprietorship establishment with one active proprietor and each partnership establishment with two working partners. The partnership factor was based on information received during a large-scale test conducted in prior years.

All employees—Comprised all full-time and part-time employees on the payrolls of construction establishments who worked or received pay for any part of the pay period including the 12th of March, May, August, and November. Included are all persons on paid-sick leave, paid holidays, and paid vacations during these pay periods. Officers of corporations are included, but proprietors and partners of unincorporated firms are excluded.

Total employment is calculated for each establishment and is derived by summing the construction workers data reported for March, May, August, and November, dividing by 4 and adding to it the number of other employees reported for March.

This approach was designed to simplify the questionnaire format and the reporting requirements of respondents. The industry average of these four selected pay periods approximates very closely the average employment for the year that would be obtained by using pay periods in all 12 months for almost all of the construction industries.

Construction workers—Includes all workers up through the working supervisor level directly engaged in construction operations, such as painters, carpenters, plumbers, and electricians. Included are journeymen, mechanics, apprentices, laborers, truck drivers and helpers, equipment operators, and on-site record keepers and security guards. Supervisory employees above the working supervisor level are excluded from this category but are included in the "other employees" category.

Other employees—Includes employees in executive, purchasing, accounting, personnel, professional, technical activities, and routine office functions. Also included are supervisory employees above the working supervisor level.

Construction worker hours—Includes the total number of hours worked by construction workers. Construction worker hours were collected for each of the four quarters of 1982 and are published in the detailed statistics tables.

Payroll—Includes the gross earnings paid in the calendar year 1982 to all employees on the payroll of construction establishments. It includes all forms of compensation, such as salaries, wages, commissions, dismissal pay, bonuses, vacation and sick-leave pay, prior to such deductions as employees' Social Security contributions, withholding taxes, group insurance, union dues, and savings bonds. The total includes salaries of officers of these establishments, if a corporation, but excludes payments to the proprietor or partners, if an unincorporated concern.

Payroll data were collected and tabulated for the employment categories described above and separately for the first quarter of 1982.

Payroll data for auxiliary establishments of multiestablishment companies are not included in these totals. Selected data for these types of establishments are found in the industry summary report and the 1982 Enterprise Statistics reports.

Employer costs for fringe benefits — Represents expenditures made by the employer during 1982 for legally required and voluntary fringe benefit programs for employees. These include employers' Social Security contributions, unemployment compensation, workers' compensation, State temporary disability payments, union negotiated benefits, life insurance premiums, pension plans, insurance premiums on hospital and medical plans, and welfare plans.

All business receipts—Includes all receipts from general contracting, special trade contracting or subcontracting, and land development and improvement work. It also includes all receipts from the sale of land (not recorded as fixed assets of the reporting establishments) and buildings built for sale. All other receipts from the reporting establishment's other business operations (rental of equipment to others, wholesale or retail sales, etc.) are also included.

Money obtained during the year in the form of construction loans is not treated as receipts, nor is money realized from the sale or other disposition of the establishment's fixed assets.

Also excluded are receipts from operations in foreign countries and nonoperating income such as interest and dividends.

All business receipts are broken down in the following detail:

Total construction receipts—Includes all receipts during 1982 for construction work performed by general contractors, special trades contractors or subcontractors, and for land development and improvement work. Included are receipts for maintenance and repair construction work, as well as for new construction and additions and alterations. Also included is the value of any construction work done by the reporting establishments for themselves.

Builders were instructed to include in this item their 1982 receipts from the sale of buildings and other structures built for sale, excluding from these receipts the value of the land (see 'land receipts' below) but including the value of any improvements an establishment made to the land. Builders who traded a new home or other building for an existing one were to include the estimated value of the trade-in.

Also included in construction receipts were fees received as sponsors of joint ventures and fees received as agents for owners (for construction work).

Excluded were receipts for separately definable architectural and engineering work done by the reporting establishment for others and receipts from the rental of equipment to others (see "other business receipts" below).

Establishments engaged in the sale and installation of such construction components as plumbing, heating, and central air conditioning supplies and equipment; lumber and building materials; paint, glass, and wallpaper; and electrical and wiring supplies for construction purposes were instructed to include as construction receipts both the receipts for the installation and the receipts for the value (selling price) of the items installed. (Receipts for the selling price of items sold but not installed were to be included in "other business receipts.")

Receipts for work subcontracted in from others—Covers receipts during 1982 for work done by reporting establishments for other construction contractors or builders. Establishments were asked to report the approximate percent of total construction receipts accounted for by such work, and the percentages reported were applied to the reported construction receipts to develop a value for this item.

Land receipts—Includes receipts from the sale of land, whether held for sale or sold in connection with the sale of houses and other structures. It excludes the value of any improvements made to the land prior to the sale. (That value was to be included in construction receipts.)

Other business receipts—Includes business receipts not reported as construction receipts or land receipts. The item includes business receipts from retail and wholesale trade, rental of equipment, manufacturing, transportation, legal service, insurance, finance, rental of property and other real estate operations, and other nonconstruction activities. Receipts for separately definable architectural and engineering work for others are also included here.

Net construction receipts—Derived for each establishment by subtracting the payments made for construction work subcontracted to others from the total construction receipts. (For a further explanation, see "Duplication of Receipts" section in the Introduction.)

Value added—Derived for each establishment, value added is equal to all business receipts, less payments for construction work subcontracted to others and payments for materials, components, supplies, and fuels. For SIC 6552 and SIC 1531, for which land receipts are significant, value added is modified to be equal to all business receipts less land receipts; payments for construction work subcontracted to others; and payments for materials, components, supplies, and fuels. (For a further explanation, see "Duplication of Receipts" section in the Introduction.)

Selected payments—Represents the total of payments for materials, components, and supplies; payments for construction work subcontracted to others; and payments for selected power, fuels, and lubricants. Capital expenditures and rental payments for machinery, equipment, and structures are shown elsewhere.

Payments for materials, components, and supplies include:

- total payments made by the reporting establishments during 1982 for the purchase of all materials, components, and supplies, except fuels, used for construction. (Supplies include expendable tools charged to current accounts.)
- freight and other direct charges incurred by the reporting establishment in acquiring the materials, components, and supplies are also included, as are the value of materials, components, and supplies obtained from other establishments of the respondent's company. Payments represent the amount paid after discounts.
- payments for materials, components, and supplies used by the reporting establishments in the construction of new plants or equipment for themselves, which are chargeable to their fixed assets accounts, are included in this item as are payments for materials bought and resold to others.
- payments made for direct purchases of materials, components, and supplies even though the purchases were subsequently provided to subcontractors for their use.

Payments for materials, components, and supplies include only payments for physical goods and represent the amount paid after discounts.

Excluded from this item are:

- services such as advertising, telephone, telegraph and cable, insurance, developmental and research services of engineering, management, marketing, and other professional consultants, unless their costs are included in the prices paid for materials.
- overhead items such as depreciation charges against plant and equipment, rent and rental allowances, interest payments, royalties, patent fees, payments for land, rental of construction machinery or equipment, and construction work let out to other construction contractors.
- materials furnished to contractors by the owners of projects.

Payments for construction work subcontracted to others include:

- all payments made during 1982 for construction work subcontracted out to other construction contractors.
 General contractors were instructed to include payments to subcontractors. Builders were instructed to include payments made to general contractors and also payments made directly to subcontractors.
- special trade contractors were instructed to include payments made to other subcontractors. The payments made by the reporting establishment for its purchases of materials, components, and supplies are not included here, even if they were provided to a subcontractor for his use. Such purchases are reported under a separate category, "payments for materials, components, and supplies." However, if payments to subcontractors covered materials purchased directly by the subcontractors, then the total of such payments (including material charges) should have been reported in this item.

Excluded from this item are:

 payments made for the rental of construction machinery or equipment.

Payments for selected power, fuels, and lubricants include:

- payments made for fuels, lubricants, and electric energy purchased during the year from other companies, or received from other establishments of the parent company.
- payments made for natural and manufactured gas, fuel oil, coal and coke products, etc.

Dollar amounts include freight and other direct charges.

Storage capacity for fuels—Data for storage capacity for fuels were collected from heavy construction contractors, other than building construction contractors. Data are published in the detailed statistics tables for the heavy construction industries, i.e., SIC 1611, SIC 1622, SIC 1623, and SIC 1629.

Rental payments for machinery, equipment, and structures—Includes all payments made during 1982 for renting or leasing construction machinery and equipment, transportation equipment, production equipment, office equipment, furniture and fixtures, scaffolding, office space, and buildings. It excludes payments for the rental of land. It also excludes payments made under agreements which, in effect, are conditional sales contracts and which, as a result, are capitalized. Such payments are included in "capital expenditures." It also excludes payments made under agreements which, in effect, are true subcontract construction arrangements; such payments are included in payments for "construction work subcontracted to others."

Selected purchased services — Includes all payments made during 1982 for communication services purchased from other companies or from other establishments of the parent company. It also includes the cost of all repairs made to structures and equipment by outside firms, or from other establishments of the parent companies. It includes only the cost of that repair necessary to maintain property and equipment. It excludes the cost of improvements that increases the value of property, or the cost of adapting it for another use.

Fixed assets and depreciation—Refers to the value of all fixed tangible assets such as buildings and other structures (offices, shops, etc.); stationary machinery (generators, shop equipment, etc.); mobile machinery (tractors, trucks, etc.); and other equipment (office furniture and fixtures, etc.). Not included are such items as current assets, depletable assets, intangible assets, and nondepreciable assets.

Data on fixed assets and depreciation were collected separately for: (1) structures, additions, and related facilities; (2) machinery and equipment; and (3) the total of both.

Respondents were asked to report the gross book valueacquisition cost (original cost or other basis) at the beginning and at the end of 1982. They were also asked to report capitalized expenditures, depreciation charges, and the gross value of assets sold, retired, scrapped, destroyed, etc., during 1982.

Capital expenditures — Refers to all costs actually incurred during 1982 which were or would be chargeable to the fixed assets accounts of the reporting establishments and which were of the type for which depreciation accounts are ordinarily maintained. These expenditures cover the acquisition, the construction, and the major alteration of the reporting establishment's own buildings and other structures, whether purchased, constructed under contract, or constructed by the reporting establishment's own forces; and the acquisition of machinery and equipment. Included are payments made under agreements which, in effect, are conditional sales contracts and which, as a result, are capitalized.

Respondents were instructed not to include any expenditures actually made prior to, or after 1982. For example, if they began construction of a building for an establishment's own use before 1982 and did not complete it until after 1982, they were to report only those costs actually incurred during 1982.

If capital expenditures were not recorded directly at the establishment level but handled centrally at the company or division level, respondents were requested to report appropriate estimates for the individual establishments.

- New structures and related facilities—Includes the
 total expenditures during 1982 for new buildings and
 structures, major additions and alterations to
 buildings and structures, and other facilities for the
 reporting establishment's use (such as roads, docks,
 tracks, parking lots, and fences). It excludes expenditures for land.
- New machinery and equipment—Includes expenditures for new machinery and new equipment. This item also includes capitalized repairs and improvements to used machinery and equipment.
- New automobiles and trucks intended primarily for highway use—Includes expenditures for new automobiles and trucks and capitalized repairs and improvements to used automobiles and trucks.
- Used structures and related facilities—Covers expenditures for used structures and related facilities acquired from others.
- Used machinery and equipment—Includes expenditures for used machinery and equipment acquired from others, including automobiles and trucks.
 Capitalized repairs and improvements to such equipment are reported as new machinery and equipment.

Value of inventories—Includes all of the materials and supplies that are owned and located within the United States. Excludes materials which are owned by others, but held by the reporting establishment.

Inventories of multiestablishment companies were instructed to be reported by the establishment that is responsible for the inventories even if these inventories were held at a separate location.

Establishments building structures on their own land for sale (operative builders) were instructed to include the value of materials on hand at the end of the year but not to include the structures not yet sold or under construction.

Land subdividers and developers were instructed to include the value of materials on hand at the end of the year, but not include land not yet sold or under construction.

Ownership of construction projects—This item shows the distribution of construction receipts by ownership of the project—Government owned or privately owned. This classification relates to the ownership of the projects or work undertaken and not to the financing. Government owned projects cover those owned by the Federal, Commonwealth, or local governments including public authorities and special districts.

Types of construction—This item provides data by the types of buildings, structures, or other facilities being constructed or worked on by construction establishments in 1982. Respondents were instructed that each building, structure, or other facility should be classified in terms of its function. For example, a restaurant building was to be classified in the restaurant category whether it was designed as a commercial restaurant building or an auxiliary unit of an educational institution. However, complex projects consisting of two or more types of buildings, structures, or other facilities are difficult to classify because sufficient information is seldom available. Therefore, respondents were told to classify complex projects by the major function of the total complex.

In addition, heavy construction contractors and special trade contractors were requested to report the percentage of construction receipts derived from new construction work, including additions and alterations, and from maintenance and repair work for each of these types. General building contractors were requested to report the percentage of construction receipts derived from new construction work, from additions and alterations, and from maintenance and repair work for each of these types. See the definition of "Construction" for the meanings of new construction, additions and alterations, and maintenance and repair.

Building construction:

- Single-family houses, detached—Includes all residential buildings constructed for one family use.
- Single-family houses, attached (includes townhouses)—Includes all residential buildings with two or more living quarters side by side, completely independent of one another, and separated by an unbroken party or lot line wall from ground to roof.
- Apartment buildings with two or more apartments— Includes high-rise, low-rise, or any structures other than containing two or more housing units.
- Other residential buildings—Includes hotels, motels, dormitories, and other nonhousekeeping residential structures.
- Bank buildings and other financial institutions— Includes all buildings which are used primarily to house banks or other financial institutions.
- Warehouses—Includes commercial warehouses, cold storage plants, grain elevators, miniwarehouses, and other storage buildings.
- Farm buildings, nonresidential—Includes nonresidential farm buildings such as barns, poultry houses, implement sheds, and farm silos.
- Industrial buildings—Includes all industrial buildings and plants which are used to house production and assembly activities. Note that heavy industrial facilities such as blast furnaces, petroleum refineries, chemical complexes, etc., are NOT included in this category, but are shown under nonbuilding construction.
- Office buildings—Includes all buildings which are used primarily for office space or for government administrative offices.
- Other commercial buildings such as stores, restaurants, and automobile service stations— Includes all buildings which are intended for use primarily in the wholesale, retail, and service trades.
 For example, complete shopping centers, department stores, drug stores, restaurants, public garages, and auto service stations.
- Religious buildings—Includes all buildings which are intended for religious services or functions, such as churches, synagogues, convents, monasteries, and seminaries.

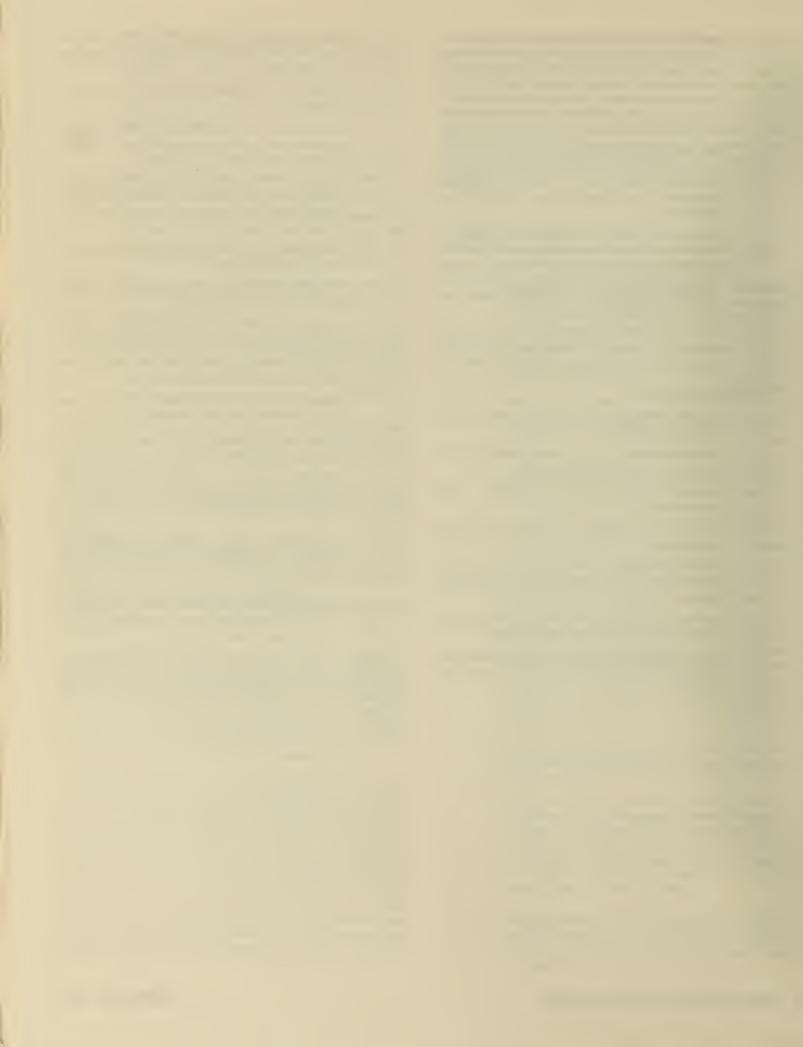
- Educational buildings Includes all buildings which
 are used directly in administrative and instructional
 activities, such as colleges, universities, elementary
 and secondary schools, correspondence, commercial, and trade schools. Libraries, museums and art
 galleries, as well as laboratories which are not a part
 of a manufacturing establishment, are also included.
- Hospitals and institutional buildings—Includes all buildings which are intended to provide hospital and institutional care, such as clinics, infirmaries, sanitariums, nursing homes, homes for the aged, and orphanages.
- Amusement, social, and recreational buildings— Includes buildings which are used primarily for entertainment, social, and recreational activities, such as sports arenas, theaters, music halls, golf and country club buildings, skating rinks, bowling alleys, and indoor swimming pools.
- Other nonresidential buildings—Includes buildings which are not classified elsewhere, such as fire stations, bus and air passenger terminals, hangars, etc.

Nonbuilding construction:

- Outdoor swimming pools—Includes wading pools and reflecting pools.
- Elevated highways—Includes roads, highways, and causeways built on structural supports.
- Bridges—Includes viaducts, trestles, and overpasses.
- Tunnels Includes highway, pedestrian, and railway tunnels, etc.
- Railroad construction—Includes the construction of railroad beds, tracks, freight yards, and signal towers.
- Subway construction Includes urban mass transit subway systems above or below ground.
- Dam and reservoir construction—Includes hydroelectric, water supply, and flood control dams and reservoirs.

- Marine construction—Includes dredging, underwater rock removal, breakwaters, navigational channels, ietties, and locks.
- Harbor and port facilities Includes docks, piers, and wharves.
- Conservation and development construction— Includes land reclamation, irrigation projects, drainage canals, dikes, and levees.
- Power and communication transmission lines, towers, and related facilities—Includes telephone and telegraph lines, television and radio towers, electric light and power facilities.
- Power plants, except nuclear Includes electric and steam generating plants.
- Power plants, nuclear—Includes atomic energy plants and nuclear reactors.
- Sewers, sewerlines, and related facilities—Includes sanitary and storm sewers and related facilities.
- Sewage treatment plants—Includes sewage treatment and waste disposal plants.
- Water mains and related facilities—Includes water supply systems and related facilities.
- Water treatment plants—Includes water filtration and water softening plants.
- Pipeline construction other than sewer or waterlines—Includes pipelines for the transmission of gas, petroleum products, and liquefied gases.
- Blast furnaces, petroleum refineries, chemical complexes, etc.—Includes coke ovens, and mining appurtenances such as tipples and washeries.
- Other nonbuilding construction—Includes all types of nonbuilding construction, not included elsewhere.

Location of construction work—This item includes data for each State in which respondents engaged in construction work and the extent (percent of construction receipts) of that work.



APPENDIX B. Standard Industrial Classification Titles for Industry Groups and Industries

SIC	Industry titles	SIC code	Industry titles
15	BUILDING CONSTRUCTION—GENERAL CONTRACTORS AND OPERATIVE BUILDERS	17	CONSTRUCTION—SPECIAL TRADE CONTRACTORS—Con.
152	General Building Contractors—Residential Buildings	173 1731	Electrical Work Special Trade Contractors Electrical Work Special Trade Contractors
1521	General Contractors — Single-Family Houses	174	Masonry, Stonework, Tile Setting, and Plastering
1522	General Contractors—Residential Buildings, Other Than Single-Family Houses	1741	Special Trade Contractors
153	Operative Builders		Masonry, Stone Setting, and Other Stonework Special Trade Contractors
1531	Operative Builders	1742	Plastering, Drywall, Acoustical and Insulation Work Special Trade Contractors
154	General Building Contractors – Nonresidential Buildings	1743	Terrazzo, Tile, Marble, and Mosaic Work Special Trade Contractors
1541	General Contractors—Industrial Buildings and Warehouses	175	Companyating and Electing Consist Total Contractors
1542	General Contractors - Nonresidential Buildings,	1751	Carpentering and Flooring Special Trade Contractors Carpentering Special Trade Contractors
	Other Than Industrial Buildings and Warehouses	1752	Floor Laying and Other Floorwork Special Trade
16	CONSTRUCTION OTHER THAN BUILDING		Contractors, N.E.C.
	CONTRUCTION—GENERAL CONTRACTORS	176	Roofing and Sheet Metal Work Special Trade
161	Highway and Street Construction, Except Elevated Highways	1761	Contractors Roofing and Sheet Metal Work Special Trade
1611	Highway and Street Construction Contractors		Contractors
162	Heavy Construction, Except Highway and Street	177 1771	Concrete Work Special Trade Contractors Concrete Work Special Trade Contractors
1622	Construction Bridge, Tunnel, and Elevated Highway Construc-	178	
1600	tion Contractors	1781	Water Well Drilling Special Trade Contractors Water Well Drilling Special Trade Contractors
1623	Water, Sewer, Pipe Line, Communication and Power Line Construction Contractors	179	Miscellaneous Special Trade Contractors
1629	Heavy Construction Contractors, N.E.C.	1791	Structural Steel Erection Special Trade Contractors
17	CONSTRUCTION - SPECIAL TRADE	1793 1794	Glass and Glazing Work Special Trade Contractors
	CONTRACTORS	1/94	Excavating and Foundation Work Special Trade Contractors
171	Plumbing, Heating (Except Electric), and Air Con-	1795	Wrecking and Demolition Work Special Trade Contractors
1711	ditioning Special Trade Contractors Plumbing, Heating (Except Electric), and Air Con-	1796	Installation or Erection of Building Equipment Special Trade Contractors, N.E.C.
	ditioning Special Trade Contractors	1799	Special Trade Contractors, N.E.C.
172	Painting, Paper Hanging, and Decorating Special Trade Contractors		
1721	Painting, Paper Hanging, and Decorating Special Trade Contractors	6552	SUBDIVIDERS AND DEVELOPERS, EXCEPT CEMETERIES
		<u> </u>	



APPENDIX C. Geographic Divisions and States

NEW ENGLAND STATES

Connecticut
Maine
Massachusetts
New Hampshire
Rhode Island
Vermont

MIDDLE ATLANTIC STATES

New Jersey New York Pennsylvania

EAST NORTH CENTRAL STATES

Illinois Indiana Michigan Ohio Wisconsin

WEST NORTH CENTRAL STATES

Iowa Kansas Minnesota Missouri Nebraska North Dakota South Dakota

SOUTH ATLANTIC STATES

Delaware District of Columbia Florida Georgia Maryland

SOUTH ATLANTIC STATES-Con.

North Carolina South Carolina Virginia West Virginia

EAST SOUTH CENTRAL STATES

Alabama Kentucky Mississippi Tennessee

WEST SOUTH CENTRAL STATES

Arkansas Louisiana Oklahoma Texas

MOUNTAIN STATES

Arizona Colorado Idaho Montana Nevada New Mexico Utah Wyoming

PACIFIC STATES

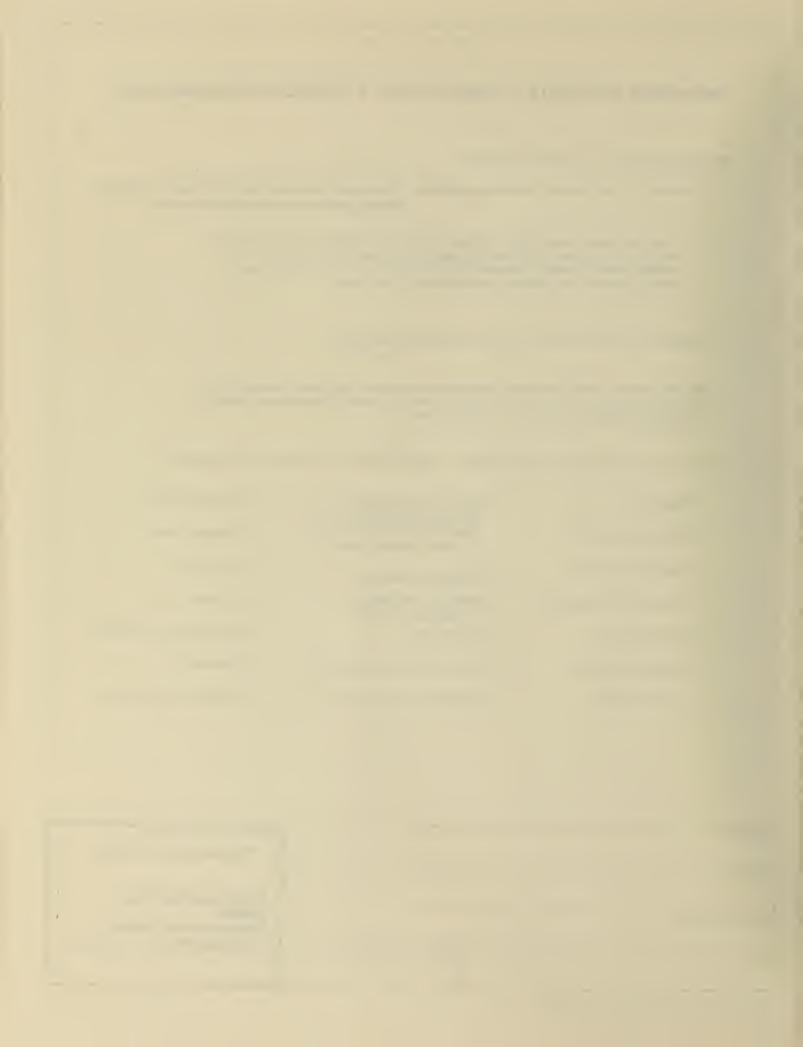
Alaska California Hawaii Oregon Washington

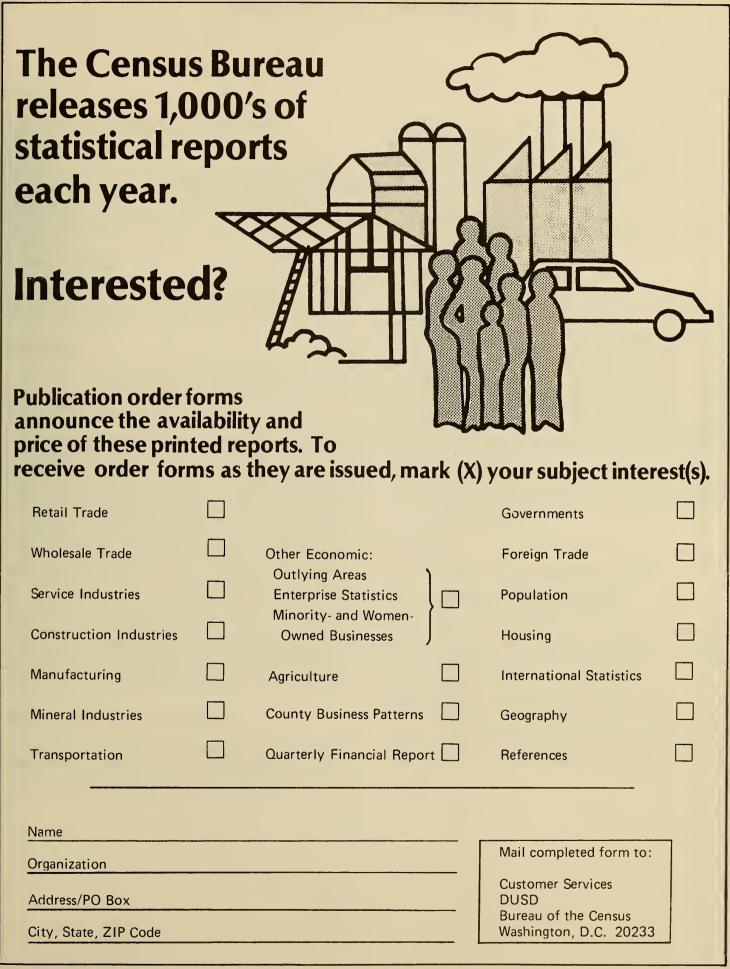


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PUBLICATION PROGRAM

1982 CENSUS OF CONSTRUCTION INDUSTRIES

Publications of the 1982 Census of Construction Industries, containing data on construction establishments in the United States, are described below. Publications order forms for the specific reports may be obtained from any Department of Commerce district office or from Data User Services Division, Customer Services (Publications), Bureau of the Census, Washington, D.C. 20233.

Preliminary Reports

Preliminary data from the 1982 census have been issued in 27 industry reports and 1 summary report. These reports are superseded by more detailed final reports.

Final Reports

Final detailed statistics are issued in separate paperbound reports.

Industry series - 28 reports (CC-82-I-1 to -28)

Industry series — 27 reports (CC82-I-1 to -27). These reports present data for establishments with payroll and are published for each of the 27 industries included in the census. Each industry report presents 1982 data by State and for the United States on number of construction establishments; receipts; employment; hours worked; payrolls; payments to subcontractors; payments for materials, components, and supplies; payments for power and fuels; payments for selected purchased services; payments for the rental of machinery, equipment, and structures; value added; capital expenditures during the year; and depreciable assets. Limited data for 1977, 1972, and 1967 are also shown. In addition, more detailed data are shown at the U.S. level on construction receipts by type of structure (single-family houses, streets, roads, etc.). Selected data also are provided for establishments classified by their employment size and receipts size.

U.S. Summary – 1 report (CC82-I-28). This report summarizes the data for establishments with payroll presented in the 27 individual industry reports and presents limited data for establishments with no payroll.

Geographic area series - 10 reports (CC82-A-1 to -10)

Division reports (CC82-A-1 to -9). These reports are published for States grouped according to the nine census geographic divisions. Much of the geographic area series data are the same as presented in the

industry series, except here they are organized by State rather than by industry. Similar data also are presented for selected SMSA's. Data are provided for establishments classified by their employment size and receipts size. Data for establishments with no payroll as well as comparative 1977, 1972, and 1967 figures, on a limited basis, also are shown.

U.S. Summary by State (CC82-A-10). This report summarizes the data, as presented in the nine individual geographic division reports, for establishments with and without payroll.

Special series - 1 report (CC82-SP-1)

Legal form of organization and type of operation (CC82-SP-1)—This report presents limited data (number of establishments, number of proprietors and working partners, total employment, and total receipts) for construction establishments without payroll, for construction establishments with payroll, and for the aggregate, classified by industry and by legal form of organization. It also contains selected statistics (number of establishments, employment, payrolls, receipts, payments to subcontractors, net construction receipts, and value added) for construction establishments with payroll, classified by industry and by type of operation (multiunit or single-unit) and by legal form of organization.

Final Report Volume

Final paperbound reports subsequently are assembled and reissued in two clothbound volumes.

Microfiche

All published data also are available on microfiche.

OTHER ECONOMIC CENSUSES REPORTS

Data on retail trade, wholesale trade, service industries, manufactures, enterprise statistics, minority-owned businesses, women-owned businesses, and transportation also are issued as part of the 1982 Economic Censuses. A separate series of reports covers the censuses of outlying areas—Puerto Rico, Virgin Islands of the United States, Guam, and the Northern Mariana Islands. All published reports and microfiche are sold by the Superintendent of Documents, U.S. Government Printing Office. Appropriate announcements and order forms describing these products are available free of charge from Data User Services Division Customer Services (Publications), Bureau of the Census, Washington D.C. 20233.

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